

ALNYLAM PHARMACEUTICALS, INC.

Form DEF 14A

April 28, 2006

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**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:

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**ALNYLAM PHARMACEUTICALS, INC.
300 THIRD STREET
CAMBRIDGE, MASSACHUSETTS 02142**

**NOTICE OF 2006 ANNUAL MEETING OF STOCKHOLDERS
To Be Held On June 1, 2006**

To our Stockholders:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of Alnylam Pharmaceuticals, Inc. will be held on Thursday, June 1, 2006 at 9:00 a.m., local time, at the offices of Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, Massachusetts 02142. At the meeting, stockholders will consider and vote on the following matters:

1. The election of three (3) members to our board of directors to serve as Class II directors, each for a term of three years.
2. The ratification of the appointment by our board of directors of PricewaterhouseCoopers LLP, an independent registered public accounting firm, as our independent auditors for the fiscal year ending December 31, 2006.

The stockholders will also act on any other business that may properly come before the annual meeting or any adjournment thereof.

Stockholders of record at the close of business on April 20, 2006 are entitled to notice of, and to vote at, the annual meeting or any adjournment thereof. Your vote is important regardless of the number of shares you own.

We hope that all stockholders will be able to attend the annual meeting in person.

Whether or not you plan to attend the annual meeting in person, please complete, date, sign and promptly return the enclosed proxy card in the enclosed envelope or submit a proxy by telephone or through the Internet as described in the enclosed proxy card. If you attend the meeting, your proxy will, upon your written request, be returned to you and you may vote your shares in person.

By Order of the Board of Directors,

John M. Maraganore, Ph.D.
President and Chief Executive Officer

Cambridge, Massachusetts
April 28, 2006

YOU CAN VOTE IN ONE OF FOUR WAYS:

- (1) Use the toll-free telephone number on your proxy card to submit a proxy by telephone;**
 - (2) Visit the web site noted on your proxy card to submit a proxy through the Internet;**
 - (3) Complete, sign, date and return your proxy card in the enclosed envelope to submit a proxy by mail; or**
 - (4) Vote in person at the Annual Meeting of Stockholders.**
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**ALNYLAM PHARMACEUTICALS, INC.
300 THIRD STREET
CAMBRIDGE, MASSACHUSETTS 02142**

PROXY STATEMENT

**for the 2006 Annual Meeting of Stockholders
To Be Held On June 1, 2006**

This proxy statement and the enclosed proxy card are being furnished in connection with the solicitation of proxies by the board of directors of Alnylam Pharmaceuticals, Inc. for use at the Annual Meeting of Stockholders to be held on Thursday, June 1, 2006 at 9:00 a.m., local time, at the offices of Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, Massachusetts 02142, and at any adjournment thereof.

All proxies will be voted in accordance with the instructions contained in those proxies. If no choice is specified, the proxies will be voted in favor of the matters set forth in the accompanying Notice of Meeting.

Our Annual Report to Stockholders and our Annual Report on Form 10-K for the fiscal year ended December 31, 2005 are being mailed to stockholders with the mailing of these proxy materials on or about April 28, 2006.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2005 as filed with the Securities and Exchange Commission will be furnished without charge to any stockholder upon written request to Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, Massachusetts 02142, Attention: Cynthia Clayton, Director, Investor Relations and Corporate Communications.

Voting Securities and Votes Required

Stockholders of record at the close of business on April 20, 2006 will be entitled to notice of and to vote at the annual meeting. On that date, 31,982,327 shares of our common stock were issued and outstanding. Each share of common stock entitles the holder to one vote with respect to all matters submitted to stockholders at the meeting. We have no other securities entitled to vote at the meeting.

The presence in person or representation by proxy of the holders of a majority of the shares of common stock issued and outstanding and entitled to vote at the annual meeting is necessary to establish a quorum for the transaction of business. If a quorum is not present, the meeting will be adjourned until a quorum is obtained.

Directors are elected by a plurality of the votes cast by the stockholders entitled to vote on the election. To be approved, any other matter submitted to our stockholders, including the ratification of the appointment of PricewaterhouseCoopers LLP, an independent registered public accounting firm, as our independent auditors, requires the affirmative vote of the holders of a majority of the outstanding shares present in person or represented by proxy at the annual meeting and voting on such matter. The votes will be counted, tabulated and certified by a representative of Computershare Trust Company, N.A., who will serve as the inspector of elections at the annual meeting.

Shares which abstain from voting as to a particular matter, and shares held in street name by banks or brokerage firms who indicate on their proxy cards that they do not have discretionary authority to vote such shares as to a particular matter, which we refer to as broker non-votes, will not be considered as voting on such matter. Accordingly, neither abstentions nor broker non-votes will have any effect upon the

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outcome of voting with respect to any matters voted on at the annual meeting, but will be counted for the purpose of determining whether a quorum exists.

Stockholders may vote in person or by proxy. Execution of a proxy or submission of a proxy by telephone or through the Internet will not in any way affect a stockholder's right to attend the meeting and vote in person. A proxy may be revoked before it is used to cast a vote. To revoke a proxy, a stockholder must:

file with the corporate secretary of the company, at or before the taking of the vote, a written notice of revocation bearing a later date than the proxy;

duly execute a later dated proxy relating to the same shares and deliver it to the corporate secretary of the company before the taking of the vote;

if you submitted a proxy through the Internet or by telephone, submit a proxy again through the Internet or by telephone prior to the close of the Internet voting facility or the telephone voting facility; or

attend the annual meeting and vote in person. Attendance at the annual meeting, if a stockholder does not vote, will not be sufficient to revoke a proxy.

Any written notice of revocation or subsequent proxy should be sent to us at the following address: Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, MA 02142, Attention: Steven D. Singer, Esq., Corporate Secretary. The shares represented by all properly executed proxies received in time for the meeting will be voted as specified in those proxies. If the shares you own are held in your name and you do not specify in the proxy card how your shares are to be voted, they will be voted in favor of the election as directors of those persons named in this proxy statement, in favor of the ratification of the appointment of PricewaterhouseCoopers LLP as our independent auditors and in the discretion of the persons appointed as proxies on any other items that may properly come before the meeting. If the shares you own are held in street name, the bank or brokerage firm, as the record holder of your shares, is required to vote your shares in accordance with your instructions. In order to vote your shares held in street name, you will need to follow the directions your bank or brokerage firm provides you.

Householding of Annual Meeting Materials

Some banks, brokers and other nominee record holders may be participating in the practice of householding proxy statements and annual reports. This means that only one copy of our proxy statement and annual report to stockholders may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you upon written or oral request to Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, Massachusetts 02142, Attention: Cynthia Clayton, Director, Investor Relations and Corporate Communications, telephone: (617) 551-8200. If you want to receive separate copies of the proxy statement or annual report to stockholders in the future, or if you are receiving multiple copies and would like to receive only one copy per household, you should contact your bank, broker or other nominee record holder, or you may contact us at the above address and phone number.

STOCK OWNERSHIP INFORMATION

The following table sets forth information regarding beneficial ownership of our common stock as of February 28, 2006 by:

each person, or group of affiliated persons, known to us to be the beneficial owner of more than 5% of the outstanding shares of our common stock,

each of our directors,

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our chief executive officer and each of our other executive officers who were serving as executive officers on December 31, 2005 and whose total annual compensation exceeded \$100,000 for the year ended December 31, 2005, who we refer to collectively as our named executive officers, and

all of our directors and executive officers as of the date hereof as a group.

The number of shares of common stock beneficially owned by each person or entity is determined in accordance with the applicable rules of the Securities and Exchange Commission and includes voting or investment power with respect to shares of our common stock. The information is not necessarily indicative of beneficial ownership for any other purpose. Unless otherwise indicated, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of common stock, except to the extent authority is shared by spouses under community property laws. The inclusion of any shares deemed beneficially owned in this table does not constitute an admission of beneficial ownership of those shares.

Security Ownership of Certain Beneficial Owners and Management

Name and Address of Beneficial Owner(1)	Number of Shares Owned	+	Common Stock Underlying Options Acquirable Within 60 Days(2)	=	Total Beneficial Ownership	Percentage of Common Stock Beneficially Owned(3)
Holders of more than 5% of our common stock						
Novartis Pharma AG(4)	5,267,865				5,267,865	16.5%
FMR Corp.(5)	3,461,987				3,461,987	10.9%
Abingworth BioVentures(6)	2,200,000				2,200,000	6.9%
Directors and Named Executive Officers						
Peter Barrett, Ph.D. (7)	904,604				904,604	2.8%
John K. Clarke(8)	1,394,845				1,394,845	4.4%
John M. Maraganore, Ph.D.	9,270		805,770(9)		815,040	2.5%
Vicki L. Sato, Ph.D.						
Paul R. Schimmel, Ph.D.	336,473(10)				336,473	1.1%
Phillip A. Sharp, Ph.D.	252,630				252,630	*
Kevin P. Starr			32,893		32,893	*
James L. Vincent	10,000				10,000	*
Barry E. Greene	54,551		116,577		171,128	*
Vincent J. Miles			80,426		80,426	*
All directors and executive officers as a group (10 persons)	2,963,443		995,013		3,958,456	12.0%

* Less than 1% of our outstanding common stock.

(1) Unless otherwise indicated, the address of each stockholder is c/o Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, MA 02142.

(2)

All stock options granted by us prior to the completion of our initial public offering were subject to a right of early exercise, pursuant to which an optionee could exercise unvested stock options for shares of restricted stock. However, for purposes of this table, options that will not vest within 60 days after February 28, 2006 have not been deemed exercisable or outstanding.

- (3) Percentage of beneficial ownership is based on 31,921,314 shares of our common stock outstanding as of February 28, 2006. Shares of common stock subject to options currently exercisable, or exercisable within 60 days of February 28, 2006, are deemed outstanding for computing the

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percentage of the person holding such options but are not deemed outstanding for computing the percentage for any other person.

- (4) Novartis AG, as parent of Novartis Pharma AG, is the indirect beneficial owner of such 5,267,865 shares. Our investor rights agreement with Novartis Pharma AG provides Novartis with the right to acquire additional equity securities of Alnylam in the event that we propose to sell or issue any equity securities, subject to specified exceptions, as described in the investor rights agreement, such that Novartis would be able generally to maintain its ownership percentage in Alnylam. In accordance with the terms of the investor rights agreement, in connection with the follow-on public offering of common stock that we completed in January 2006, Novartis Pharma AG has the right to purchase from us up to 1,260,802 shares of our common stock at a purchase price that is a 10% premium to the price that we sold shares in the offering or a 10% premium to the market price, as determined in accordance with the investor rights agreement, at the time of purchase by Novartis, whichever is greater, if Novartis exercises its purchase right within the time period set forth in the investor rights agreement. The information contained in the table above does not include any shares that Novartis has the right to purchase under the investor rights agreement. The address of Novartis Pharma AG is Lichstrasse 35, Basel, Switzerland V8 CH 4056.
- (5) Fidelity Management & Research Company is the beneficial owner of 3,174,487 shares as a result of acting as an investment advisor to various investment companies registered under Section 8 of the Investment Company Act of 1940. The ownership of one investment company, Fidelity Aggressive Growth Fund, amounted to 1,788,900 shares. Edward C. Johnson 3d, Chairman of FMR Corp. and FMR Corp., through its control of Fidelity Management & Research Company, and certain funds each has sole power to dispose of the 3,174,487 shares owned by such funds. Neither FMR Corp. nor Edward C. Johnson 3d has the sole power to vote or direct the voting of the shares owned directly by such funds, which power resides with the funds' Boards of Trustees. Fidelity Management & Research Company carries out the voting of the shares under written guidelines established by the funds' Boards of Trustees. Fidelity Management Trust Company is the beneficial owner of 6,600 shares. Edward C. Johnson 3d and FMR Corp. each have sole dispositive power over these 6,600 shares and sole power to vote or to direct the voting of these 6,600 shares. Fidelity International Limited is the beneficial owner of 280,900 shares. Various persons have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of our common stock held by these funds. The address of FMR Corp. is 82 Devonshire Street, Boston, MA 02109. This information is based on an Amendment No. 1 to Schedule 13G filed by FMR Corp. with the SEC on February 14, 2006.
- (6) Consists of 1,004,001 shares held by Abingworth Bioventures III A L.P., 612,874 shares held by Abingworth Bioventures III B L.P., 367,126 shares held by Abingworth Bioventures III C L.P., 15,999 shares held by Abingworth Bioventures III Executives L.P. and 200,000 shares held by Abingworth Bioequities Master Fund Limited. Abingworth Bioventures III A L.P., Abingworth Bioventures III B L.P., Abingworth Bioventures III C L.P. and Abingworth Bioventures III Executives L.P., which are collectively referred to as the Funds, share a manager, Abingworth Management Limited, and are affiliated funds, and, on this basis, may be deemed to beneficially own the shares held by one another. Each of the Funds disclaims beneficial ownership of such shares of common stock except for the shares, if any, such Fund holds of record. Abingworth Management Limited, as the manager of each of the Funds and Abingworth Bioequities Master Fund Limited, may be deemed to beneficially own all of the shares held by the Funds and Abingworth Bioequities Master Fund Limited. Each of the Funds may be deemed to share the power to direct the disposition of and vote the shares held by the Funds. Abingworth Management Limited may be deemed to share the power to direct the disposition of and vote all of the shares held by the Funds and Abingworth Bioequities Master Fund Limited. The address of Abingworth BioVentures is 38 Jermyn Street, London, England SW1Y 6DN, United Kingdom.

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- (7) Includes 285,962 shares held by Atlas Venture Fund V, L.P., 71,042 shares held by Atlas Venture Fund V-A, C.V., 4,759 shares held by Atlas Venture Entrepreneurs Fund V, L.P., 519,126 shares held by Atlas Venture Fund VI, L.P., 14,020 shares held by Atlas Venture Entrepreneurs Fund VI, L.P. and 9,506 shares held by Atlas Venture Fund VI GmbH & Co. KG. By virtue of their relationship as affiliated limited partnerships, each of these funds may be deemed to share the power to direct the disposition of and vote these shares. As general partner or managing limited partner, as the case may be, of certain of these funds, and by virtue of the relationship of these funds as affiliated limited partnerships, each of Atlas Venture Associates V, L.P. and Atlas Venture Associates VI, L.P. may also be deemed to beneficially own these shares. As the general partner of Atlas Venture Associates V, L.P. and Atlas Venture Associates VI, L.P., respectively, Atlas Venture Associates V, Inc. and Atlas Venture Associates VI, Inc. may also be deemed to beneficially own these shares. In their capacities as directors of Atlas Venture Associates V, Inc. and Atlas Venture Associates VI, Inc., each of Axel Bichara, Jean-Francois Formela and Christopher Spray may also be deemed to beneficially own these shares. Each person or entity listed above disclaims beneficial ownership of these shares except for such shares, if any, such person or entity holds of record.

Peter Barrett, Ph.D., a member of our board of directors, is a Senior Partner of Atlas Venture. Dr. Barrett disclaims beneficial ownership of such shares listed above except to the extent of his pecuniary interest therein. In addition, Dr. Barrett holds 189 shares directly.

The address of Atlas Venture is 890 Winter Street, Suite 320, Waltham, MA 02451.

- (8) Includes 1,391,870 shares held by CHP II, L.P. John K. Clarke, the Chairman of our board of directors, is a managing member of CHP II Management, LLC, the General Partner of CHP II, L.P. Mr. Clarke, together with Brandon H. Hull, John J. Park and Lisa M. Skeete Tatum, the other managing members of CHP II Management LLC, share voting power and investment control with respect to the shares held by CHP II, L.P. Mr. Clarke may be deemed to beneficially own the shares held by CHP II, L.P. although Mr. Clarke disclaims beneficial ownership except to the extent of his pecuniary interest therein. The address of CHP II, L.P. is c/o Cardinal Partners, 221 Nassau Street, Princeton, NJ 08542.
- (9) Includes an aggregate of 4,515 shares subject to options held by trusts established by Dr. Maraganore for the benefit of his children and of which he is the trustee and over which he has sole investment and voting power.
- (10) Includes 131,578 shares held by Paul Schimmel as Trustee of the Paul Schimmel Prototype PSP and of which he is the trustee and over which he has sole investment and voting power.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires our directors, executive officers and the holders of more than 10% of our common stock to file with the Securities and Exchange Commission initial reports of ownership of our common stock and other equity securities on a Form 3 and reports of changes in such ownership on a Form 4 or Form 5. Officers, directors and 10% stockholders are required by Securities and Exchange Commission regulations to furnish us with copies of all Section 16(a) forms they file. Based solely on a review of our records and written representations by the persons required to file these reports, we believe that all filing requirements of Section 16(a) were satisfied with respect to our most recent fiscal year.

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We have three classes of directors, currently consisting of three Class I directors, three Class II directors and two Class III directors. At each annual meeting, directors are elected for a full term of three years to succeed those whose terms are expiring. The terms of the three classes are staggered in a manner so that only one class is elected by stockholders annually. John K. Clarke, Vicki L. Sato, Ph.D. and James L. Vincent are currently serving as Class II directors. The Class II directors elected this year will serve as members of our board of directors until the 2009 annual meeting of stockholders, or until their respective successors are elected and qualified.

The persons named in the enclosed proxy will vote to re-elect Mr. Clarke, Dr. Sato and Mr. Vincent as Class II directors unless the proxy is marked otherwise. Mr. Clarke, Dr. Sato and Mr. Vincent have indicated their willingness to serve on our board of directors, if elected; however, if any nominee should be unable to serve, the person acting under the proxy may vote the proxy for a substitute nominee designated by our board of directors. Our board of directors has no reason to believe that Mr. Clarke, Dr. Sato and Mr. Vincent would be unable to serve if elected.

Board Recommendation

The board of directors recommends a vote FOR the election of each of the Class II director nominees.

Set forth below for each director, including the Class II director nominees, is information as of February 28, 2006 with respect to his or her (a) name and age, (b) positions and offices at Alnylam, (c) principal occupation and business experience during at least the past five years, (d) directorships, if any, of other publicly held companies and (e) the year such person became a member of our board of directors. The duration of an individual's service on our board of directors or as an officer described below includes service on the board of directors or as an officer of our predecessor company, which was also known as Alnylam Pharmaceuticals, Inc.

Name	Age	Director Since	Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships
Class II directors, nominees to be elected at the annual meeting (terms expiring in 2009)			
John K. Clarke(1)(3)	52	2002	Mr. Clarke has served as the Chairman of our board of directors since June 2002. Since founding Cardinal Partners, a venture capital firm focused on healthcare, in 1997, Mr. Clarke has served as its Managing General Partner. Mr. Clarke also serves as a director of Momenta Pharmaceuticals, Inc., a biotechnology company.
Vicki L. Sato, Ph.D.(3)	57	2005	Dr. Sato has served as a member of our board of directors since December 2005. Dr. Sato was formerly President of Vertex Pharmaceuticals, a biotechnology company, from 2000 to 2005. Dr. Sato also serves as a director of PerkinElmer, Inc., a biotechnology company.
James L. Vincent(2)	66	2005	Mr. Vincent has served as a member of our board of directors since July 2005. From 2000 until his retirement in 2002, Mr. Vincent was the Chairman of Biogen, Inc., now BiogenIdec, Inc., a biotechnology company.

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Name	Age	Director Since	Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships
Class III directors (terms expiring in 2007)			
Peter Barrett, Ph.D.(2)(3)	53	2002	Dr. Barrett has served as a member of our board of directors since July 2002. Dr. Barrett has served as a Senior Partner of Atlas Venture, a venture capital firm, since January 2002. From August 1998 to December 2001, he served as Executive Vice President and Chief Business Officer of Celera Genomics, a biopharmaceutical company, which he co-founded. Dr. Barrett also serves as a director of Momenta Pharmaceuticals, Inc.
Kevin P. Starr(1)(2)	43	2003	Mr. Starr has served as a member of our board of directors since September 2003. Since December 2002, after retiring from Millennium Pharmaceuticals, Inc., a biopharmaceutical company, Mr. Starr has been an entrepreneur. From December 2001 to December 2002, Mr. Starr served as Chief Operating Officer of Millennium Pharmaceuticals, Inc. Mr. Starr also served as Millennium's Chief Financial Officer from December 1998 to December 2002. From June 2000 to December 2001, Mr. Starr served in various vice president positions at Millennium, including Executive Vice President, Business Operations, and Senior Vice President.
Class I directors (terms expiring in 2008)			
John M. Maraganore, Ph.D.	43	2002	Dr. Maraganore has served as our President and Chief Executive Officer and as a member of our board of directors since December 2002. From April 2000 to December 2002, Dr. Maraganore served as Senior Vice President, Strategic Product Development for Millennium Pharmaceuticals, Inc.
Paul R. Schimmel, Ph.D.(1)	65	2002	Dr. Schimmel is a founder of Alnylam and has served as a member of our board of directors since June 2002. Dr. Schimmel has been the Ernest and Jean Hahn Professor of Molecular Biology and Chemistry and a member of the Skaggs Institute for Chemical Biology at the Scripps Research Institute since 1997. Dr. Schimmel is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. Dr. Schimmel also serves as a director of Alkermes, Inc. and is Co-Chairman of the Board of Directors of Repligen, Inc., which are biotechnology companies.

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Name	Age	Director Since	Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships
Phillip A. Sharp, Ph.D.	61	2002	Dr. Sharp is a founder of Alnylam and has served as a member of our board of directors since June 2002. Dr. Sharp is currently an Institute Professor at the Massachusetts Institute of Technology and was the Founding Director of the McGovern Institute for Brain Research at the Massachusetts Institute of Technology. Dr. Sharp has been a professor at the Massachusetts Institute of Technology since 1974. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the Institute of Medicine. Dr. Sharp received the Nobel Prize for Physiology or Medicine in 1993. He also serves as a director of BiogenIdec, Inc., which he co-founded in 1978.

(1) Member of Audit Committee

(2) Member of Compensation Committee

(3) Member of Nominating and Corporate Governance Committee

For information relating to shares of our common stock owned by each of our directors, see the disclosure set forth under the heading **Stock Ownership Information**.

CORPORATE GOVERNANCE

General

We believe that good corporate governance is important to ensure that Alnylam is managed for the long-term benefit of our stockholders. During the past year, we continued to review our corporate governance policies and practices in light of the Sarbanes-Oxley Act of 2002, Securities and Exchange Commission rules and the listing standards of the Nasdaq Stock Market. This section describes key corporate governance practices that we have adopted.

We have adopted a Code of Business Conduct and Ethics which applies to all of our officers, directors and employees, as well as charters for our audit committee, our compensation committee and our nominating and corporate governance committee. We have posted copies of the Code of Business Conduct and Ethics and each committee's charter on the Corporate Governance section of our website, www.alnylam.com. We intend to disclose any amendments to, or waivers from, our Code of Conduct and Ethics on our website.

Board Determination of Independence

Under the Nasdaq Stock Market Marketplace Rules, a director will only qualify as an independent director if, in the opinion of our board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Our board of directors has determined that none of Drs. Barrett, Sato and Schimmel and Messrs. Clarke, Starr and Vincent has a relationship which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is an independent director as defined under Rule 4200(a)(15) of the Nasdaq Stock Market Marketplace Rules.

Board of Directors Meetings and Attendance

The board of directors has responsibility for establishing broad corporate policies and reviewing our overall performance rather than day-to-day operations. The primary responsibility of our board of directors

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is to oversee the management of our company and, in doing so, serve the best interests of the company and our stockholders. The board of directors selects, evaluates and provides for the succession of executive officers and, subject to stockholder election, directors. It reviews and approves corporate objectives and strategies, and evaluates significant policies and proposed major commitments of corporate resources. Our board of directors also participates in decisions that have a potential major economic impact on our company. Management keeps the directors informed of company activity through regular communication, including written reports and presentations at board of directors and committee meetings.

Our board of directors met ten times during 2005, either in person or by teleconference. During 2005, each of our directors, other than Dr. Schimmel, attended at least 75% of the aggregate of the total number of board meetings and the total number of meetings held by all committees on which he or she then served.

Directors are responsible for attending the annual meeting of stockholders. All members of our board of directors attended the 2005 annual meeting of stockholders.

Board Committees

The board of directors has established three standing committees – audit, compensation and nominating and corporate governance – each of which operates under a written charter that has been approved by the board. We have posted copies of each committee’s charter on the Corporate Governance section of our website, www.alnylam.com.

The board of directors has determined that all of the members of each of the board’s three standing committees are independent as defined under the Nasdaq Stock Market Marketplace Rules, including, in the case of all members of the audit committee, the additional independence requirements of Rule 10A-3 under the Securities Exchange Act of 1934.

Audit Committee

We have an audit committee consisting of Messrs. Starr (Chairman) and Clarke and Dr. Schimmel. The audit committee is responsible for:

appointing, evaluating, retaining and, when necessary, terminating the engagement of our independent auditors;

taking appropriate action, or recommending that our board of directors take appropriate action, to oversee the independence of our independent auditors; and

reviewing and discussing with our management and independent auditors our audited financial statements.

In addition, the audit committee must approve any related party transaction entered into by us. We believe that each member of the audit committee satisfies the requirements for membership, including independence, established by the Nasdaq Stock Market and the SEC.

The board of directors has determined that Mr. Starr is an audit committee financial expert as defined in Item 401(h) of Regulation S-K.

No member of the audit committee is the beneficial owner of more than 10% of our common stock.

The audit committee met five times during 2005.

Compensation Committee

We have a compensation committee consisting of Dr. Barrett (Chairman) and Messrs. Starr and Vincent. The compensation committee reviews, and makes recommendations to the board of directors regarding, the compensation and benefits of our executive officers. The compensation committee also administers the issuance of stock options and other awards under our stock plans and establishes and

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reviews policies relating to the compensation and benefits of our employees and consultants. We believe that each member of the compensation committee satisfies the requirements for membership, including independence, established by the Nasdaq Stock Market.

The compensation committee met five times during 2005.

Nominating and Corporate Governance Committee

We have a nominating and corporate governance committee consisting of Mr. Clarke (Chairman) and Drs. Barrett and Sato. The purpose of the nominating and corporate governance committee is to:

recommend to the board of directors the persons to be nominated for election as directors at any meeting of stockholders;

develop and recommend to the board of directors a set of corporate governance principles; and

oversee the evaluation of the board of directors.

Procedures for the consideration of director nominees recommended by stockholders are set forth in our bylaws.

We believe that each member of the nominating and corporate governance committee satisfies the requirements for membership, including independence, as established by the Nasdaq Stock Market.

The nominating and corporate governance committee met five times during 2005.

Director Candidates

The process followed by the nominating and corporate governance committee to identify and evaluate director candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the committee and the board.

In considering whether to recommend any particular candidate for inclusion in the board's slate of recommended director nominees, the nominating and corporate governance committee will apply certain criteria, including the candidate's integrity, business acumen, knowledge of our business and industry, experience, diligence, conflicts of interest and the ability to act in the interests of all stockholders. The committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the board to fulfill its responsibilities.

Stockholders may recommend individuals to the nominating and corporate governance committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of our common stock for at least a year as of the date such recommendation is made, to the nominating and corporate governance committee, c/o Corporate Secretary, Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, Massachusetts 02142. Assuming that appropriate biographical and background material has been provided on a timely basis, the committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others. Stockholders also have the right under our bylaws to nominate director candidates directly, without any action or recommendation on the part of the committee or the board, by following the procedures set forth below under the heading "Stockholder Proposals."

At the annual meeting, stockholders will be asked to consider the election of Messrs. Clarke and Vincent and Dr. Sato, each of whom currently serves on our board. Each of Messrs. Clarke and Vincent and Dr. Sato were proposed to the board by the nominating and corporate governance committee and the board determined to include them among its nominees.

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Communicating with the Independent Directors

The board will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. The chairman of the board (if an independent director), or the lead director (if one is appointed), or otherwise the chairman of the nominating and corporate governance committee, is primarily responsible for monitoring communications from stockholders and for providing copies or summaries to the other directors as he or she considers appropriate.

Communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the chairman of the board (if an independent director), or the lead director (if one is appointed), or otherwise the chairman of the nominating and corporate governance committee, considers to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which we tend to receive repetitive or duplicative communications.

Stockholders who wish to send communications on any topic to the board should address such communications to the Board of Directors, c/o Corporate Secretary, Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, Massachusetts 02142.

Report of the Audit Committee

The audit committee reports to and acts on behalf of the board of directors by providing oversight of our financial management, audits of our financial statements and financial reporting controls and accounting policies and procedures. Our management is responsible for the preparation, presentation and integrity of our financial statements and the independent registered public accounting firm is responsible for conducting an independent audit of our annual financial statements. The audit committee is responsible for independently overseeing the conduct of these activities by our management and the independent registered public accounting firm. The audit committee has reviewed our audited financial statements for the fiscal year ended December 31, 2005 and has discussed these financial statements with our management and our independent registered public accounting firm, PricewaterhouseCoopers LLP.

In this context, the audit committee members meet regularly with PricewaterhouseCoopers LLP and management (including private sessions with PricewaterhouseCoopers LLP and members of management) to discuss any matters that the audit committee or these individuals believe should be discussed privately. The audit committee conducts a meeting each quarter to review the financial statements prior to the public release of earnings.

The board of directors has determined that Mr. Starr, the audit committee chairman, qualifies as an audit committee financial expert as defined in Item 401(h) of Regulation S-K and that he is independent as defined under Rule 10A-3 of the Securities Exchange Act of 1934 and the Nasdaq Stock Market Marketplace Rules.

The audit committee operates under a written charter adopted by the board that reflects standards contained in the Nasdaq Stock Market Marketplace Rules. The audit committee reviews this charter annually. A complete copy of the current charter is posted on the Corporate Governance section of Alnylam's website, www.alnylam.com.

Statement on Auditing Standards No. 61, *Communication with Audit Committees*, as amended, issued by the Auditing Standards Boards of the American Institute of Certified Public Accountants, requires the independent registered public accounting firm to provide the audit committee with additional information regarding the scope and results of the audit, including the independent registered public accounting firm's responsibilities under generally accepted auditing standards, significant issues or disagreements concerning our accounting practices or financial statements, significant accounting policies, significant accounting adjustments, alternative accounting treatments, accounting for significant unusual transactions, and estimates, judgments and uncertainties.

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The audit committee has discussed with PricewaterhouseCoopers LLP matters required to be discussed by the applicable Auditing Standards as periodically amended, including Statement on Auditing Standards No. 61. In addition, PricewaterhouseCoopers LLP also provided the audit committee with the written disclosures and the letter required by Independence Standards Board Standard No. 1 (Independence Discussions with Audit Committees), and the committee and PricewaterhouseCoopers LLP have discussed their independence from the company and its management, including the matters in those written disclosures.

Based on its discussions with management and PricewaterhouseCoopers LLP, and its review of the representations and information provided by management and PricewaterhouseCoopers LLP, the audit committee recommended to the board of directors that the audited financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2005. The audit committee also recommended to the board of directors, and the board has approved, subject to stockholder ratification, the selection of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2006.

By the audit committee of the board of directors of Alnylam.

Kevin P. Starr, Chairman
Paul R. Schimmel, Ph.D.
John K. Clarke

Principal Accountant Fees and Services

The following table summarizes the fees of our independent auditors, PricewaterhouseCoopers LLP, an independent registered public accounting firm, billed to us for each of the last two fiscal years for audit services and billed to us in each of the last two years for other services:

Fee Category	2005	2004
Audit Fees(1)	\$ 442,860	\$ 663,878
Audit-Related Fees(2)	43,800	
Tax Fees(3)	15,181	15,465
All Other Fees(4)	1,500	1,400
Total Fees	\$ 503,341	\$ 680,743

- (1) Audit fees consist of fees for the audit of our financial statements, the review of the interim financial statements included in our quarterly reports on Form 10-Q, and other professional services provided in connection with regulatory filings or engagements. In 2004, audit fees included services in connection with our initial public offering totaling \$484,000.
- (2) Audit-related fees consist of fees for services related to accounting consultations and advice, principally in association with our Novartis collaboration.
- (3) Tax fees consist of fees for tax compliance.
- (4) All other fees represent payment for access to the PricewaterhouseCoopers on-line accounting database.

Pre-Approval Policies and Procedures

The audit committee is required to preapprove all audit services to be provided to us, whether provided by our principal independent auditors or other firms, and all other services to be provided to us by our independent auditors, except that de minimis non-audit services may be approved in accordance with applicable SEC rules.

Table of Contents**Compensation of Directors**

Each of our non-employee directors receives a fee of \$5,000 per fiscal quarter for serving on the board of directors. Each of our directors who serves as the chairman of the board of directors or as the chairman of a committee of the board of directors receives an additional \$5,000 per year for each such position held. The chairman of the audit committee receives an additional \$10,000 per year. Directors are reimbursed for reasonable travel and other expenses incurred in connection with attending meetings of the board of directors and its committees.

Directors are also eligible to participate in our 2004 Stock Incentive Plan, which we refer to as the 2004 Plan. Pursuant to the 2004 Plan, each non-employee director is eligible to receive an option to purchase 25,000 shares of our common stock upon his or her appointment to the board. Each director who is not employed by us and has served as a director for at least six months is eligible to receive an option to purchase 10,000 shares of our common stock at each year's annual meeting at which he or she serves as a director. The chairman of the audit committee receives an additional option to purchase 10,000 shares of our common stock at each year's annual meeting at which he or she serves in such position. Each stock option terminates upon the earlier of ten years from the date of grant and three months after the optionee ceases to serve as a director. The exercise price of these options is the fair market value of our common stock on the date of grant. The options to purchase 25,000 shares of common stock described above vest as to one-third of such shares on each of the first, second and third anniversaries of the date of grant, subject to the individual's continued service as a director. The options to purchase 10,000 shares of common stock described above vest in full on the first anniversary of the date of grant, subject to the individual's continued service as a director.

In connection with the election of Mr. Vincent to our board of directors, on July 12, 2005, our board of directors granted to Mr. Vincent an additional nonstatutory stock option to purchase 50,000 shares of our common stock at an exercise price of \$7.02 per share and a restricted stock award, pursuant to which Mr. Vincent purchased 10,000 shares of our common stock for a purchase price of \$7.02 per share. The exercise price of the option and the purchase price of the restricted stock award were equal to the fair market value of our common stock on the date of grant of the option and issuance of the restricted stock. The option vests as to one-third of the shares on each of the first, second and third anniversaries of the date of grant, subject to Mr. Vincent's continued service as a member of the board. The restricted stock award vested one week after Mr. Vincent's election to the board.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Beginning in September 2005, we entered into a series of transactions with Novartis Pharma AG and Novartis Institutes for Biomedical Research, Inc., an affiliate of Novartis Pharma AG, who with Novartis Pharma AG, we refer to as Novartis. In September 2005, we executed a stock purchase agreement and an investor rights agreement with Novartis. In October 2005, in connection with the closing of the transactions contemplated by the stock purchase agreement, the investor rights agreement became effective and we executed a research collaboration and license agreement with Novartis.

Under the terms of the stock purchase agreement, on October 12, 2005, Novartis purchased 5,267,865 shares of our common stock at a purchase price of \$11.11 per share for an aggregate purchase price of approximately \$58.5 million, which, after such issuance, represented 19.9% of our outstanding common stock as of the date of issuance.

Under the terms of the investor rights agreement, we granted Novartis demand and piggyback registration rights under the Securities Act of 1933, as amended, for the shares acquired by Novartis. We also granted to Novartis rights to acquire additional equity securities of Alnylam in the event that we propose to sell or issue any equity securities, subject to specified exceptions, as described in the investor rights agreement, such that Novartis would be able to maintain its ownership percentage in Alnylam. Novartis agreed, until the later of (1) three years from the date of the investor rights agreement and (2) the date of termination or expiration of the Selection Term, as defined in the collaboration and license

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agreement, not to acquire any of our securities, other than an acquisition resulting in Novartis and its affiliates beneficially owning less than 20% of the total outstanding voting securities of Alnylam, participate in any tender or exchange offer, merger or other business combination involving us or seek to control or influence our management, board of directors or policies, subject to specified exceptions described in the investor rights agreement.

Under the terms of the collaboration and license agreement, the parties will work together on a specific number of selected targets, as defined in the collaboration and license agreement, to discover and develop therapeutics based on RNA interference, or RNAi. The collaboration and license agreement has an initial term of three years and may be extended for two additional one-year terms at the election of Novartis. In addition, Novartis may terminate the collaboration and license agreement after a period of two years under certain circumstances or in the event that we materially breach our obligations. We may terminate the agreement with respect to particular programs, products and or countries in the event of certain material breaches of obligations by Novartis, or in its entirety under certain circumstances for multiple such breaches. Novartis made up-front payments totaling \$10.0 million to us in October 2005 in consideration for the rights granted to Novartis under the collaboration and license agreement and to reimburse prior costs incurred by us to develop *in vivo* RNAi technology. In addition, the collaboration and license agreement includes terms under which Novartis will provide us with research funding and milestone payments as well as royalties on annual net sales of products resulting from the collaboration and license agreement. The collaboration and license agreement also provides Novartis with a non-exclusive option to integrate our intellectual property relating to certain RNAi technology into Novartis operations under certain circumstances, which option we refer to herein as the Integration Option. In connection with the exercise of the Integration Option, Novartis will be required to make certain additional payments to us. The terms of the collaboration and license agreement allow us to retain the right to discover, develop, commercialize or manufacture compounds that function through the mechanism of RNAi or products that contain such compounds as an active ingredient with respect to targets not selected by Novartis for inclusion in the collaboration and license agreement provided that Novartis has a right of first offer in the event that we propose to enter into an agreement with a third party with respect to any such target.

INFORMATION ABOUT EXECUTIVE COMPENSATION**Executive Compensation****Summary Compensation Table**

The table below sets forth the total compensation paid or accrued for the fiscal years ended December 31, 2005, 2004 and 2003 to our named executive officers.

Summary Compensation Table

Name and Principal Position	Fiscal Year	Annual Compensation		Long-Term Compensation Awards
		Salary (\$)	Bonus (\$)	Number of Securities Underlying Options Granted (#)
John M. Maraganore, Ph.D. <i>President and Chief Executive Officer</i>	2005	370,000		125,000
	2004	370,000		578,947
	2003	369,398	110,000	417,367
Barry E. Greene <i>Chief Operating Officer(1)</i>	2005	265,200	15,000	75,000
	2004	260,000		97,822
	2003	53,333	58,813	131,578

Vincent J. Miles, Ph.D.	2005	241,857	84,418	42,000
<i>Senior Vice President,</i>	2004	237,115	44,459	67,893
<i>Business Development(2)</i>	2003	107,716	44,975	78,947

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- (1) Mr. Greene commenced employment with Alnylam on October 20, 2003. The amount indicated under the heading **Bonus** for the year 2003 consists of a bonus of \$45,000 that Mr. Greene received upon commencement of employment with us and a bonus of \$13,813 which represents a pro-rated year-end bonus. The amount indicated under the heading **Bonus** for the year 2005 consists of a bonus that Mr. Greene received in connection with business development accomplishments. Mr. Greene also served as our Treasurer from February 2004 through December 2005.
- (2) The amount indicated under the heading **Bonus** for the year 2005 includes a bonus of \$30,000 that Dr. Miles received in connection with business development accomplishments.

Option Grants in Last Fiscal Year

The following table sets forth certain information concerning grants of stock options to purchase shares of our common stock made to our named executive officers during the fiscal year ended December 31, 2005.

Option Grants in Last Fiscal Year

Name	Number of Securities Underlying Options Granted (#)(1)	Percent of Total Options Granted to Employees in Fiscal Year	Exercise Price (\$/sh)(2)	Expiration Date	Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term(3)	
					5% (\$)	10% (\$)
John M. Maraganore, Ph.D.	125,000	9.9%	\$ 13.12	12/7/15	\$ 1,031,387	\$ 2,613,738
Barry E. Greene	75,000	5.9	13.12	12/7/15	618,832	1,568,243
Vincent J. Miles, Ph.D.	42,000	3.3	13.12	12/7/15	346,546	878,216

- (1) Stock options granted to our executive officers under our 2004 Plan generally vest as to 25% of the shares on the first anniversary of the vesting commencement date established by the board of directors and as to an additional 6.25% of the shares on the last day of each successive three-month period thereafter.
- (2) The exercise price per share was determined to be equal to the fair market value per share of common stock on the date of grant.
- (3) Amounts represent hypothetical gains that could be achieved for stock options if exercised at the end of the option term. These gains are based on assumed rates of stock price appreciation of 5% and 10% compounded annually from the date stock options are granted. Actual gains, if any, on stock option exercises will depend on the future performance of our common stock on the date on which the stock options are exercised.

Aggregated Option Exercises and Fiscal Year-End Option Value Table

The following table sets forth certain information regarding the number and value of unexercised options held as of December 31, 2005 by our named executive officers. None of our executive officers exercised any stock options during the year ended December 31, 2005.

Fiscal Year-End Option Values

Name	Number of Securities Underlying Unexercised Options at Fiscal Year-End (#)	Value of Unexercised In-the-Money Options at Fiscal Year-End (\$)(1)
	Exercisable/Unexercisable	Exercisable/Unexercisable
John M. Maraganore, Ph.D.	764,108/357,206	\$7,795,032/ \$2,292,974
Barry E. Greene	49,183/202,586	\$501,049/ \$1,273,405
Vincent J. Miles	70,015/118,825	\$823,711/ \$785,787

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- (1) Value is based on the difference between the closing sale price per share of our common stock on December 30, 2005, the last trading day of the fiscal year ended December 31, 2005 (\$13.36), and the applicable option exercise price, multiplied by the number of shares subject to the option.

Employment Arrangements

We have entered into agreements with Dr. Maraganore and Mr. Greene regarding their employment with us. Dr. Maraganore's agreement provides that if he is employed upon a change in control of Alnylam, options to purchase up to an aggregate of 417,367 shares of our common stock held by Dr. Maraganore will vest and become immediately exercisable to the extent such options have not already vested. Mr. Greene's agreement provides that if he is employed upon a change in control of Alnylam, an option to purchase 131,578 shares of our common stock held by Mr. Greene will vest and become immediately exercisable to the extent such option has not already vested.

Each executive officer has signed a nondisclosure, invention and non-competition agreement providing for the protection of our confidential information and ownership of intellectual property developed by such executive officer and a covenant not to compete with us for a period of one year after termination of employment.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2005 about the securities authorized for issuance under our equity compensation plans, consisting of our 2002 Employee, Director and Consultant Stock Option Plan, our 2003 Employee, Director and Consultant Stock Option Plan, our 2004 Plan and our 2004 Employee Stock Purchase Plan. All of our equity compensation plans were adopted with the approval of our stockholders, other than warrants issued to Lighthouse Capital Partners V, L.P., or Lighthouse, and an affiliate of Lighthouse, as described below.

Equity Compensation Plan Information

Plan Category	Number of Securities to Be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))(1)
			(c)
	(a)	(b)	(c)
Equity compensation plans approved by stockholders	3,907,127	\$ 5.73	935,574
Equity compensation plans not approved by stockholders	52,630(2)	\$ 9.50	
Total:	3,959,757	\$ 5.78	935,574

- (1) Consists of 671,577 shares of our common stock available for future issuance under our 2004 Plan and 263,997 shares of our common stock available for future issuance under our 2004 Employee Stock Purchase Plan. No shares of our common stock were available for issuance under our 2002 Employee, Director and Consultant Stock Option Plan or our 2003 Employee, Director and Consultant Stock Option Plan as of

December 31, 2005. On January 1, 2006, and in accordance with the provisions of the 2004 Plan, the number of shares available for issuance under the 2004 Plan was automatically increased by 1,331,913 shares.

- (2) Consists of warrants to purchase 52,630 shares of our common stock at an exercise price of \$9.50 per share and a term of seven years issued to Lighthouse and an affiliate of Lighthouse in connection with an agreement with Lighthouse to establish an equipment line of credit for \$10.0 million.

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Report of the Compensation Committee on Executive Compensation

Our executive compensation program is administered by the compensation committee of our board of directors which is currently composed of three non-employee directors.

Our executive compensation program is designed to attract, retain and reward executives who can help us achieve our business objectives and thereby maximize stockholder returns. The compensation committee establishes compensation policies for Dr. Maraganore, our President and Chief Executive Officer, and all other executive officers. All decisions by the compensation committee relating to the compensation of our executive officers are reviewed by our full board of directors.

This report is submitted by the compensation committee and addresses the compensation policies for 2005 as they affected Dr. Maraganore, our President and Chief Executive Officer, and our other executive officers.

Compensation Philosophy

The objectives of the executive compensation program are to align the interests of management with the interests of stockholders through a system that relates compensation to business objectives and individual performance. Our executive compensation philosophy is based on the following principles:

Competitive and Fair Compensation

We are committed to providing an executive compensation program that helps us to attract, motivate and retain highly qualified executives. Our policy is to provide total compensation that is competitive for comparable work and comparable corporate performance. To this end, we regularly compare our compensation packages with those of other companies in the industry and set our compensation guidelines based on this review. We also seek to achieve a balance of the compensation paid to a particular individual and the compensation paid to our other executives and employees.

Sustained Performance

Executive officers are rewarded based upon an assessment of corporate and individual performance. Corporate performance is evaluated by reviewing the extent to which strategic and business plan goals are met, including such factors as achievement of operating budgets, establishment of strategic development alliances with third parties, timely development of new processes and product candidates and performance relative to competitors. Individual performance is evaluated by reviewing attainment of specified individual objectives and the degree to which teamwork and our other values are fostered.

In evaluating each executive officer's performance, we generally conform to the following process:

business and individual goals and objectives are set for each performance cycle,

at the end of the performance cycle, the accomplishment of the executive's goals and objectives and his/her contributions to Alnylam are evaluated,

the executive's performance is then compared with peers within Alnylam and the results are communicated to the executive, and

the comparative results, combined with comparative compensation practices of other companies in the industry, are then used to determine salary and stock compensation levels.

Annual compensation for our executives in 2005 generally consisted of two elements: salary and stock options. Dr. Maraganore and Mr. Greene elected to opt out of our cash bonus program for 2005. Officers who opted out of the cash bonus program were eligible to receive increased option grants during 2005. However, Mr. Greene was paid a bonus of \$15,000 in connection with business development accomplishments. A bonus totaling approximately \$84,418 was paid to Dr. Miles for 2005, \$30,000 of which was paid in connection with business development accomplishments.

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Salary for our executives is generally set by reviewing compensation for comparable positions in the market and the historical compensation levels of our executives. Increases in annual salaries are based on actual corporate and individual performance vis-à-vis targeted performance criteria and various subjective performance criteria. Targeted performance criteria vary for each executive based on his area of responsibility, and may include:

achievement of our operating budget,

continued innovation in development and commercialization of our technology,

timely development of new product candidates or processes, and

implementation of financing strategies and establishment of strategic development alliances with third parties.

Subjective performance criteria include an executive's ability to motivate others, provide leadership to help the organization grow as we mature, recognize and pursue new business opportunities and initiate programs to enhance our growth and success. The compensation committee does not rely on a formula that assigns a pre-determined value to each of the criteria, but instead evaluates an executive officer's contribution in light of all criteria.

Compensation for executive officers also includes the long-term incentives afforded by stock options. Our stock option program is designed to align the long-term interests of our employees and our stockholders and assist in the retention of executives. The size of option grants is generally intended to reflect the executive's position with us and his/her contributions to us, including his/her success in achieving the individual performance criteria described above. We generally grant options with annual vesting schedules over a four-year period to encourage key employees to continue their employment with us. During 2005, we granted stock options to purchase an aggregate of 242,000 shares of our common stock to executive officers, each at an exercise price of \$13.12 per share. All stock options granted to executive officers during 2005 were granted at fair market value on the date of grant.

Executive officers who are not considered highly compensated individuals within the meaning of Section 414(q) of the Internal Revenue Code of 1986, as amended, are also eligible to participate in our employee stock purchase plan. The purchase plan is available to virtually all of our employees and permits participants to purchase shares of our common stock at a discount of 15% from the fair market value at the beginning or end of the applicable purchase periods set forth in the purchase plan.

Compliance with Internal Revenue Code Section 162(m)

Section 162(m) of the Internal Revenue Code generally disallows a tax deduction to a public company for compensation over \$1 million paid to the company's chief executive officer and four other most highly compensated executive officers. Qualifying performance-based compensation will not be subject to the deduction limit if certain requirements are met. In general, the company structures and administers its stock incentive plans in a manner intended to comply with the performance-based exception to Section 162(m). Nevertheless, there can be no assurance that compensation attributable to awards granted under our stock incentive plans will be exempt from Section 162(m) as qualified performance-based compensation. In addition, the compensation committee has the authority to authorize compensation payments that may be subject to the limit where the compensation committee believes that such payments are appropriate and in the best interests of our company and our stockholders, after taking into consideration changing business conditions and the performance of our officers.

Dr. Maraganore's 2005 Compensation

Dr. Maraganore is eligible to participate in the same executive compensation plans available to our other executive officers. The compensation committee believes that Dr. Maraganore's annual compensation, including the portion of his compensation based upon our stock option program, has been set at a level competitive with other companies in the industry.

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Dr. Maraganore elected to opt out of our cash bonus program for 2005 and as a result, was eligible to receive increased option grants. During 2005, Dr. Maraganore was granted a stock option to purchase an aggregate of 125,000 shares of our common stock at an exercise price per share of \$13.12, which exercise price per share equaled the fair market value per share of our common stock on the date of grant.

Dr. Maraganore's salary will increase to \$415,000 for 2006. In determining Dr. Maraganore's compensation, the compensation committee considered, among other things, his leadership that enabled us to meet our business objectives in the areas of: preclinical and clinical milestones, scientific success, establishing business alliances, particularly the significant alliance that was formed with Novartis, and achieving financial goals. In addition, the committee reviewed Dr. Maraganore's overall compensation package relative to that of several other chief executives at biotechnology companies of similar size, financial resources and stage of development.

By the compensation committee of the board of directors of Alnylam.

Peter Barrett, Ph.D., Chairman

Kevin P. Starr

James L. Vincent

Compensation Committee Interlocks and Insider Participation

None of our executive officers served as a member of the board of directors or compensation committee (or other committee serving an equivalent function) of any other entity while an executive officer of that other entity served as a member of our board of directors or compensation committee. None of the current members of our compensation committee has ever been an employee of Alnylam.

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The comparative stock performance graph below compares the cumulative total stockholder return (assuming reinvestment of dividends, if any) from investing \$100 on May 28, 2004, the date on which our common stock was first publicly traded, to the close of the last trading day of 2005, in each of (i) our common stock, (ii) the NASDAQ Stock Market (U.S.) Index and (iii) the NASDAQ Pharmaceutical Index.

COMPARISON OF CUMULATIVE TOTAL RETURN*
AMONG ALNYLAM PHARMACEUTICALS, INC.,
NASDAQ STOCK MARKET (U.S.) INDEX AND NASDAQ PHARMACEUTICAL INDEX

	Measurement Period (Fiscal Year Covered)		
	5/28/04	12/31/04	12/31/05
Alnylam Pharmaceuticals, Inc.	\$ 100.00	\$ 124.29	\$ 222.30
NASDAQ Stock Market (U.S.) Index	\$ 100.00	\$ 109.70	\$ 112.03
NASDAQ Pharmaceutical Index	\$ 100.00	\$ 103.32	\$ 113.78

* \$100 invested on May 28, 2004 in our common stock, the NASDAQ Stock Market (U.S.) Index or the NASDAQ Pharmaceutical Index, including reinvestment of dividends.

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PROPOSAL TWO RATIFICATION OF APPOINTMENT OF INDEPENDENT AUDITORS

Board Recommendation

The board of directors recommends a vote FOR the ratification of the appointment of PricewaterhouseCoopers LLP as our independent auditors for the fiscal year ending December 31, 2006.

Our board of directors has appointed the firm of PricewaterhouseCoopers LLP, an independent registered public accounting firm, as independent auditors for the fiscal year ending December 31, 2006. Although stockholder approval of the board of directors' appointment of PricewaterhouseCoopers LLP is not required by law, our board of directors believes that it is advisable to give stockholders an opportunity to ratify this appointment. If this proposal is not approved at the annual meeting, our board of directors will reconsider its appointment of PricewaterhouseCoopers LLP. Representatives of PricewaterhouseCoopers LLP are expected to be present at the annual meeting and will have the opportunity to make a statement, if they desire to do so, and will be available to respond to appropriate questions from our stockholders.

OTHER MATTERS

Our board of directors does not know of any other matters which may come before the meeting. However, if any other matters are properly presented to the meeting, it is the intention of the persons named in the accompanying proxy card to vote, or otherwise act, in accordance with their judgment on those matters.

SOLICITATION OF PROXIES

The cost of solicitation of proxies will be borne by Alnylam. In addition to the solicitation of proxies by mail, officers and employees of Alnylam may solicit proxies in person or by telephone. We have also retained The Altman Group to solicit proxies by mail, courier, telephone and facsimile and to request brokers, custodians and fiduciaries to forward proxy soliciting materials to the owners of stock held in their names. For these services, we will pay a fee of \$5,000 plus expenses. We may reimburse brokers or persons holding stock in their names, or in the names of their nominees, for their expenses in sending proxies and proxy material to beneficial owners.

STOCKHOLDER PROPOSALS

In order to be included in proxy material for the 2007 annual meeting of stockholders, stockholders' proposals must be received by us at our principal executive offices, 300 Third Street, Cambridge, Massachusetts 02142 no later than December 29, 2006. We suggest that proponents submit their proposals by certified mail, return receipt requested, addressed to our Corporate Secretary.

In addition, our by-laws require that we be given advance notice of stockholder nominations for election to the board of directors and of other matters which stockholders wish to present for action at an annual meeting of stockholders, other than matters included in our proxy statement. The required notice must be in writing and received by our corporate secretary at our principal offices not later than March 3, 2007 (90 days prior to the first anniversary of our 2006 Annual Meeting of Stockholders) and not before February 1, 2007 (120 days prior to the first anniversary of our 2006 Annual Meeting of Stockholders). However, if the 2007 Annual Meeting of Stockholders is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the 2006 Annual Meeting of Stockholders, notice must be received not earlier than the 120th day prior to such Annual Meeting and not later than the close of business on the later of (1) the 90th day prior to such Annual Meeting and (2) the 10th day following the date on which notice of the date of such Annual Meeting was mailed or public disclosure of the date of such Annual Meeting was made, whichever occurs first. Our by-laws also specify requirements relating to

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the content of the notice which stockholders must provide, including a stockholder nomination for election to the board of directors, to be properly presented at the 2007 annual meeting of stockholders.

By Order of the Board of Directors,

JOHN M. MARAGANORE, Ph.D.
President and Chief Executive Officer

Cambridge, Massachusetts

April 28, 2006

OUR BOARD OF DIRECTORS HOPES THAT STOCKHOLDERS WILL ATTEND THE ANNUAL MEETING. WHETHER OR NOT YOU PLAN TO ATTEND THE ANNUAL MEETING IN PERSON, PLEASE COMPLETE, DATE, SIGN AND PROMPTLY RETURN THE ENCLOSED PROXY CARD IN THE ENCLOSED ENVELOPE OR SUBMIT A PROXY BY TELEPHONE OR THROUGH THE INTERNET AS DESCRIBED IN THE ENCLOSED PROXY CARD. A PROMPT RESPONSE WILL GREATLY FACILITATE ARRANGEMENTS FOR THE MEETING AND YOUR COOPERATION WILL BE APPRECIATED. STOCKHOLDERS WHO ATTEND THE MEETING MAY VOTE THEIR STOCK PERSONALLY EVEN THOUGH THEY HAVE SUBMITTED A PROXY PREVIOUSLY.

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A Election of Class II Directors PLEASE REFER TO THE REVERSE SIDE FOR TELEPHONE AND INTERNET VOTING INSTRUCTIONS.

1. The Board of Directors recommends a vote FOR the listed nominees as Class II directors of the Company:

	For	Withhold
01 John K. Clarke	<input type="radio"/>	<input type="radio"/>
02 Vicki L. Sato, Ph.D.	<input type="radio"/>	<input type="radio"/>
03 James L. Vincent	<input type="radio"/>	<input type="radio"/>

B Ratification of Appointment of Independent Auditors

2. The Board of Directors recommends a vote FOR the following proposal:

	For	Against	Abstain
To ratify the appointment by the Board of Directors of PricewaterhouseCoopers LLP, an independent registered public accounting firm, as the Company's independent auditors for the fiscal year ending December 31, 2006.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Mark this box with an X if you have made comments below.

C Authorized Signatures Sign Here This section must be completed for your instructions to be executed.

Please sign exactly as your name(s) appear(s) hereon. All holders must sign. When signing as attorney, executor, administrator or other fiduciary, please give your full title as such. Joint owners should each sign personally. If a corporation, please sign in full corporate name, by authorized officer. If a partnership, please sign in partnership name by authorized person. Please be sure to sign and date this proxy below.

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PROXY FOR THE ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON JUNE 1, 2006

This Proxy is solicited on behalf of the Board of Directors of Alnylam Pharmaceuticals, Inc. (the Company).

The undersigned, having received notice of the annual meeting of stockholders and the proxy statement therefor and revoking all prior proxies, hereby appoints each of John M. Maraganore, Ph.D. and Barry E. Greene (with full power of substitution), as proxies of the undersigned, to attend the annual meeting of stockholders of the Company to be held on Thursday, June 1, 2006, at the offices of Alnylam Pharmaceuticals, Inc., 300 Third Street, Cambridge, Massachusetts 02142, and any adjourned or postponed session thereof, and there to represent, vote and act as indicated upon the matters on the reverse side in respect of all shares of common stock which the undersigned would be entitled to vote or act upon, with all powers the undersigned would possess if personally present.

If the undersigned hold(s) any of the shares of common stock in a fiduciary, custodial or joint capacity or capacities, this proxy is signed by the undersigned in every such capacity as well as individually.

The shares of common stock of Alnylam Pharmaceuticals, Inc. (the Company) represented by this proxy will be voted as directed by the undersigned for the proposals herein proposed by the Company. If no direction is given with respect to any proposal specified herein, this proxy will be voted FOR the proposal. In their discretion, the proxies are authorized to vote upon any other business that may properly come before the meeting or any adjournment thereof.

Please vote, date and sign on reverse side and return promptly in the enclosed pre-paid envelope.

Your vote is important. Please vote immediately.

CONTINUED AND TO BE SIGNED ON REVERSE SIDE

SEE REVERSE SIDE

Telephone and Internet Voting Instructions

You can vote by telephone OR Internet! Available 24 hours a day 7 days a week!

Instead of mailing your proxy, you may choose one of the two voting methods outlined below to vote your proxy.

VALIDATION DETAILS ARE LOCATED ON THE FRONT OF THIS FORM IN THE COLORED BAR.

If you vote by telephone or the Internet, please DO NOT mail back this proxy card.

Proxies submitted by telephone or the Internet must be received by 11:59 pm,

Eastern Time, on May 31, 2006.

THANK YOU FOR VOTING