

MOMENTA PHARMACEUTICALS, INC.
675 West Kendall Street
Cambridge, Massachusetts 02142

May 7, 2008

To Our Stockholders:

You are cordially invited to attend the 2008 Annual Meeting of Stockholders of Momenta Pharmaceuticals, Inc. to be held at 10:00 a.m., local time, on Wednesday, June 4, 2008, at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109.

The Notice of Meeting and Proxy Statement on the following pages describe the matters to be presented at the meeting.

It is important that your shares be represented at this meeting to assure the presence of a quorum. Whether or not you plan to attend the meeting, we hope that you will have your stock represented by voting your shares over the Internet or by telephone as provided in the instructions set forth on the enclosed proxy card, or by completing, signing, dating and returning your proxy in the enclosed envelope, *as soon as possible*. Your stock will be voted in accordance with the instructions you have given in your proxy.

Thank you for your continued support.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig A. Wheeler", with a long horizontal line extending to the right.

Craig A. Wheeler
President and Chief Executive Officer

MOMENTA PHARMACEUTICALS, INC.
675 West Kendall Street
Cambridge, Massachusetts 02142

NOTICE OF 2008 ANNUAL MEETING OF STOCKHOLDERS

To Be Held On June 4, 2008

To Our Stockholders:

NOTICE IS HEREBY GIVEN that the 2008 Annual Meeting of Stockholders of Momenta Pharmaceuticals, Inc., or the Annual Meeting, will be held on Wednesday, June 4, 2008 at 10:00 a.m., local time, at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109. At the Annual 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 I directors, each for a term of three years; and
2. The ratification of the selection by the Audit Committee of our board of directors of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2008.

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 Monday, April 14, 2008 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. A complete list of such stockholders will be open to the examination of any stockholder at our principal executive offices at 675 West Kendall Street, Cambridge, Massachusetts 02142, during ordinary business hours, for a period of ten days prior to the Annual Meeting as well as on the day of the Annual Meeting. The Annual Meeting may be adjourned from time to time without notice other than by announcement at the Annual Meeting.

We hope that all stockholders will be able to attend the Annual Meeting in person. However, to ensure that a quorum is present at the Annual Meeting, please vote your shares over the Internet or by telephone as provided in the instructions set forth on the enclosed proxy card, or complete date, sign and promptly return the enclosed proxy card whether or not you expect to attend the Annual Meeting. A postage-prepaid envelope, addressed to Broadridge Financial Solutions, serving as proxy tabulator, has been enclosed for your convenience. If you attend the Annual Meeting in person, your proxy will, upon your written request, be returned to you and you may vote your shares in person.

All stockholders are cordially invited to attend the Annual Meeting.

By Order of the Board of Directors,



Craig A. Wheeler
President and Chief Executive Officer

Cambridge, Massachusetts
May 7, 2008

WHETHER OR NOT YOU EXPECT TO ATTEND THE ANNUAL MEETING, PLEASE VOTE YOUR SHARES OVER THE INTERNET OR BY TELEPHONE AS PROVIDED IN THE INSTRUCTIONS SET FORTH ON THE ENCLOSED PROXY CARD, OR COMPLETE, DATE AND SIGN THE ENCLOSED PROXY CARD AND PROMPTLY MAIL IT IN THE ENCLOSED ENVELOPE TO ASSURE REPRESENTATION OF YOUR SHARES AT THE ANNUAL MEETING. NO POSTAGE NEED BE AFFIXED IF THE PROXY CARD IS MAILED WITHIN THE UNITED STATES.

**MOMENTA PHARMACEUTICALS, INC.
675 WEST KENDALL STREET
CAMBRIDGE, MASSACHUSETTS 02142**

PROXY STATEMENT

*for the 2008 Annual Meeting of Stockholders
to be held on Wednesday, June 4, 2008*

This proxy statement and the enclosed proxy card are being furnished in connection with the solicitation of proxies by the board of directors of Momenta Pharmaceuticals, Inc., also referred to in this proxy statement as the "Company", "Momenta", "we" or "us", for use at the 2008 Annual Meeting of Stockholders, or the Annual Meeting, to be held on Wednesday, June 4, 2008 at 10:00 a.m., local time, at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109, and at any adjournment thereof. You may obtain directions to the location of the Annual Meeting by contacting Steven N. Avruch, Esq., Corporate Secretary, Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, Massachusetts 02142; telephone: (617) 491-9700.

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. Any proxy may be revoked by a stockholder at any time before it is exercised by delivery of written revocation to our corporate secretary or by appearing at the Annual Meeting and voting in person.

Our 2007 Annual Report to Stockholders for the fiscal year ended December 31, 2007 is being mailed to stockholders with the mailing of these proxy materials on or about May 7, 2008.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be Held on June 4, 2008:

This proxy statement and the 2007 Annual Report to Stockholders are available for viewing, printing and downloading at <http://ir.momentapharma.com/financials.cfm>.

A copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2007 as filed with the Securities and Exchange Commission, except for exhibits, will be furnished without charge to any stockholder upon written request to Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, Massachusetts 02142, Attention: Richard P. Shea, Chief Financial Officer and Treasurer, telephone: (617) 491-9700.

Voting Securities and Votes Required

Stockholders of record at the close of business on Monday, April 14, 2008 will be entitled to notice of, and to vote at, the Annual Meeting. On that date, 36,772,829 shares of our common stock were issued and outstanding. Each share of common stock entitles the holder thereof to one vote with respect to all matters submitted to stockholders at the Annual Meeting. We have no other securities entitled to vote at the Annual 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 Annual 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 Ernst & Young LLP as our

independent registered public accounting firm, requires the affirmative vote of a majority in voting power of the outstanding shares of stock present or represented and voting on such matters. The votes will be counted, tabulated and certified by a representative of Broadridge Financial Solutions, who will serve as the inspector of elections at the Annual Meeting.

Abstentions are included in the shares present at the Annual Meeting for purposes of determining whether a quorum is present, and are counted as a vote against for purposes of determining whether a proposal is approved. Broker non-votes (when shares are represented at the Annual Meeting by a proxy specifically conferring only limited authority to vote on certain matters and no authority to vote on other matters) are included in the determination of the number of shares represented at the Annual Meeting for purposes of determining whether a quorum is present but are not counted for purposes of determining whether a proposal has been approved and thus have no effect on the outcome.

Voting Your Shares

If you are the record holder of your shares, you may vote in one of four ways. You may vote by submitting your proxy over the Internet, by telephone, or by mail or you may vote in person at the Annual Meeting.

You may vote over the Internet. If you have Internet access, you may vote your shares from any location in the world by following the "Vote by Internet" instructions set forth on the enclosed proxy card.

You may vote by telephone. You may vote your shares by following the "Vote by Phone" instructions set forth on the enclosed proxy card.

You may vote by mail. You may vote by completing, dating and signing the proxy card that accompanies this proxy statement and promptly mailing it in the enclosed postage-prepaid envelope. You do not need to put a stamp on the enclosed envelope if you mail it in the United States. The shares you own will be voted according to the instructions on the proxy card you mail. If you return the proxy card, but do not give any instructions on a particular matter described in this proxy statement, the shares you own will be voted in accordance with the recommendations of our board of directors. Our board of directors recommends that you vote FOR Proposals 1 and 2.

You may vote in person. If you attend the Annual Meeting, you may vote by delivering your completed proxy card in person or you may vote by completing a ballot. Ballots will be available at the meeting.

Changing Your Vote; Revocation of Proxy

Voting over the Internet or by telephone or execution of a proxy will not in any way affect a stockholder's right to attend the Annual 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 our corporate secretary, 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 our corporate secretary before the taking of the vote; 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: Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, MA 02142, Attention: Steven N. Avruch, Esq., Corporate Secretary. The shares represented by all properly executed proxies received in time for the Annual 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 of the directors named in this proxy statement, in favor of the ratification of the appointment of Ernst & Young LLP as our independent registered public accounting firm and, in the discretion of the persons appointed as proxies, on any other items that may properly come before the Annual 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. To vote your shares held in "street name," you will need to follow the directions provided to you by your bank or brokerage firm.



PROPOSAL ONE

ELECTION OF DIRECTORS

Board Recommendation

The board of directors recommends a vote "FOR" the election of each of Mr. Crane, Mr. Hutt and Ms. Fanucci as Class I directors.

We have three classes of directors, currently consisting of three Class I directors, four Class II directors and four 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. Alan L. Crane, Peter Barton Hutt and Marsha H. Fanucci are currently serving as Class I directors. The Class I directors elected this year will serve as members of our board of directors until the 2011 annual meeting of stockholders, or until their respective successors are elected and qualified.

The persons named in the enclosed proxy card will vote to elect Mr. Crane, Mr. Hutt and Ms. Fanucci as Class I directors unless you withhold authority to vote for the election of any or all nominees by marking the proxy card (whether executed by you or through the Internet or telephonic voting). Mr. Crane, Mr. Hutt and Ms. Fanucci currently serve on our board of directors. The nominees have indicated their willingness to continue to serve if elected. However, if any director nominee should be unable to serve, the shares of common stock represented by proxies may be voted for a substitute nominee designated by our board of directors. Our board of directors has no reason to believe that the nominees will be unable to serve if elected.

On April 10, 2008, Stephen T. Reeders, a Class II director and a member of audit committee, submitted his resignation effective as of the date of the Annual Meeting. Our board of directors has provided that our full board of directors shall be comprised of eleven members. We are actively recruiting potential candidates to fill this directorship. This vacancy, when it occurs, may be filled by a vote of a majority of the directors then in office. The director elected to fill this vacancy shall hold office until the next election of the class for which such director shall have been chosen.

No director or executive officer is related by blood, marriage or adoption to any other director or executive officer. No arrangements or understandings exist between any director or person nominated for election as a director and any other person pursuant to which such person is to be selected as a director or nominee for election as a director.

Our Board of Directors

Set forth below for each of our directors, including the Class I director nominees, is information as of April 15, 2008 with respect to each director's (a) name and age, (b) positions and offices with us, (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.

Name	Age	Director Since	Principal Occupation, Other Business Experience During the Past Five Years and Other Directorships
Class I directors, nominees to be elected at the 2008 Annual Meeting (if elected, terms to expire in 2011)			
Alan L. Crane	44	2001	<p>Alan L. Crane has been a director since June 2001 and served as our President and Chief Executive Officer from May 2002 through August 2006 and September 2006, respectively. Mr. Crane also held the position of Chairman of the Board from May 2002 until June 2005 when, in connection with the determination of our board of directors to separate the positions of chairman of the board and chief executive officer, Mr. Crane resigned as Chairman. Mr. Crane has served as President and Chief Executive Officer of Tempo Pharmaceuticals since December 2006. Mr. Crane also serves as a venture partner at Polaris Venture Partners, a venture capital firm, and serves on the boards of several privately-held biopharmaceutical companies. From February 1997 to May 2002, Mr. Crane held various management positions at Millennium Pharmaceuticals, Inc., a biopharmaceutical company. He most recently served as Senior Vice President, Global Corporate Development, where he led Millennium's strategic alliance, mergers and acquisitions and licensing activities. Mr. Crane received his B.A. in Biology, summa cum laude, from Harvard College and both his M.A. in Biology and M.B.A. in General Management from Harvard University.</p>

Class I directors, nominees to be elected at the 2008 Annual Meeting (if elected, terms to expire in 2011)

Peter Barton Hutt(2)(3)	73	2001	Peter Barton Hutt, LL.B., L.L.M. has been a director since June 2001. Mr. Hutt is a senior counsel at the law firm of Covington & Burling and has been an attorney with that firm since 1975. He served as Chief Counsel for the Food and Drug Administration from 1971 through 1975. Mr. Hutt is a member of the Institute of Medicine of the National Academy of Sciences and teaches a course on Food and Drug Law each Winter Term at Harvard Law School. He co-authored the casebook used to teach Food and Drug Law and has published numerous papers on the subject. Mr. Hutt is a member of the board of directors of CV Therapeutics, Inc., Favrilite, Inc., Intragen Therapeutics, Inc., Ista Pharmaceuticals, Inc., Xoma Ltd. and several privately-held life sciences companies. Mr. Hutt received his B.A., magna cum laude, from Yale University, his L.L.B. from Harvard University and his L.L.M. from New York University.
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Marsha H. Fanucci(1)	55	2005	Marsha H. Fanucci has been a director since March 2005. Ms. Fanucci has served as Senior Vice President and Chief Financial Officer of Millennium Pharmaceuticals, Inc. since July 2004, where she is responsible for corporate strategy, treasury, financial planning and reporting and operations. Since joining Millennium in 2000, she has also served as Vice President, Finance and Corporate Strategy and Vice President, Corporate Development and Strategy. Previously, she was Vice President of Corporate Development and Strategy at Genzyme from 1998 to 2000. From 1987 to 1998, Ms. Fanucci was employed at Arthur D. Little, Inc. where she most recently served as Vice President and Director. She received her B.S. in Pharmacy from West Virginia University and her M.B.A. from Northeastern University.
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Class II directors (terms expiring in 2009)

John K. Clarke(1)	54	2002	John K. Clarke has been a director since April 2002. Mr. Clarke founded Cardinal Partners, a venture capital firm, in 1997 and has served as the Managing General Partner since 1997. He has founded and served as interim Chief Executive Officer of a number of portfolio companies, including Alkermes, Inc., Arris Pharmaceuticals, Inc., Cubist Pharmaceuticals, Inc. and the DNX Corporation. Mr. Clarke is chairman of the board of directors of Alynlam Pharmaceuticals, Inc. and serves as a member of the board of directors of Sirtris Pharmaceuticals and a number of privately-held health care companies. He received his B.A. in Biology and Economics from Harvard College and his M.B.A. from the Wharton School of the University of Pennsylvania.
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Class II directors (terms expiring in 2009)

Robert S. Langer, Jr.(4)	59	2001	Robert S. Langer, Jr., Sc.D. is a co-founder of our company and has been a director since May 2001. Dr. Langer is an Institute Professor at the Massachusetts Institute of Technology and has been on the faculty of M.I.T. since 1977. Dr. Langer is the former Chairman of the Food and Drug Administration Science Board, the FDA's highest advisory board. He has written over 1,000 articles, 700 abstracts and has over 600 issued or pending patents. Dr. Langer has received over 150 major awards, including the 2002 Charles Stark Draper Prize, considered the world's most prestigious engineering prize and the engineering-equivalent of the Nobel Prize. Dr. Langer is a member of the board of directors of Alseres Pharmaceuticals, Inc., Echo Therapeutics, Wyeth and several privately-held life sciences companies. Dr. Langer received his B.S. from Cornell University and his Sc.D. from the Massachusetts Institute of Technology, both in Chemical Engineering.
Stephen T. Reeders(1)	54	2003	Stephen T. Reeders, D.M., MRCP has been a director since May 2003. Dr. Reeders is a founder and Managing Member of MVM Life Science Partners LLP, a venture capital firm. He previously served as the Chief Executive Officer of MVM Limited from 2000 to 2006. He has co-founded several biotechnology companies and is a member of the board of directors of several privately-held life sciences companies. Prior to founding MVM, Dr. Reeders led healthcare investing at Saunders, Karp & Megrue, a venture capital firm, and served on the faculty of Yale University. He was previously an Associate Professor of Medicine and Genetics at the Boyer Center for Molecular Medicine of Yale University. He received a B.A. from Cambridge University and BMBCh and DM degrees from Oxford University.
Craig A. Wheeler	47	2006	Mr. Wheeler has served as President and as a director since August 2006 and was appointed as our Chief Executive Officer in September 2006. Prior to joining Momenta, Mr. Wheeler served as President of Chiron Biopharmaceuticals from August 2001 until June 2006. Prior to joining Chiron, Mr. Wheeler was a senior member of The Boston Consulting Group's health care practice from August 1988 until August 2001. Mr. Wheeler was appointed to the board of directors of Avanir Pharmaceuticals, Inc. in September 2005 and has served as Chairman of the Board since May 2007. Mr. Wheeler received B.S. and M.S. degrees in chemical engineering from Cornell University and an M.B.A. degree from the Wharton School of the University of Pennsylvania.

Class III directors (terms expiring in 2010)

Peter Barrett(2)(3)	55	2003	<p>Peter Barrett, Ph.D. has been a director since May 2003 and has served as Chairman of the Board since June 2005. Dr. Barrett has served as a 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 is a member of the board of directors of Akela Pharma, Inc., Helicos BioSciences Corp. and a number of privately-held biopharmaceutical companies. Dr. Barrett received his B.S. in Chemistry from Lowell Technological Institute (now known as the University of Massachusetts, Lowell) and his Ph.D. in Analytical Chemistry from Northeastern University. He also completed Harvard Business School's Management Development Program.</p>
Ram Sasisekharan(4)	43	2001	<p>Ram Sasisekharan, Ph.D. is a co-founder of our company and has been a director since May 2001. Dr. Sasisekharan has been a Professor of Biological Engineering at the Massachusetts Institute of Technology since 1996 and is affiliated with the Harvard-MIT Division of Health Sciences and Technology. Dr. Sasisekharan's research on complex polysaccharides has led to over 106 publications and over 34 patents, including the core technologies of Momenta. He has won both the Burroughs Wellcome and Beckman Foundation Young Investigator Awards and was the recipient of the 1998, 1999, 2000 and 2001 CaPCure Awards from the CaPCure Foundation. Dr. Sasisekharan serves on the steering committee of the Consortium for Functional Glycomics. Dr. Sasisekharan received his Ph.D. in Medical Sciences from Harvard Medical School.</p>

Class III directors (terms expiring in 2010)

Bennett M. Shapiro(2)(3)(4)	67	2003	Bennett M. Shapiro, M.D. has been a director since May 2003. Since 2006, he has served as a Partner at PureTech Ventures and since 2003 he has served as a private consultant providing advice to executives. From September 1990 to July 2003, Dr. Shapiro served as an Executive Vice President of Merck & Co., Inc., a research-based pharmaceutical company. Dr. Shapiro is the former head of Worldwide Licensing and External Research at Merck; prior to that he served as the head of Basic and Preclinical Research at Merck and as Chairman of the Biochemistry department at the University of Washington. Dr. Shapiro serves on the board of numerous privately-held biopharmaceutical companies. Dr. Shapiro received his B.S. in Chemistry from Dickinson College and his M.D. from Jefferson Medical College.
Elizabeth Stoner (2)(4)	57	2007	Elizabeth Stoner, M.D. is an executive partner at MPM Capital. Prior to joining MPM Capital, Dr. Stoner had a 22-year career at Merck Research Laboratories. At the time of her retirement from Merck, Dr. Stoner was Senior Vice President of Global Clinical Development Operations with responsibility for the company's clinical development activities in more than 40 countries. Prior to her position at Merck, she was an Assistant Professor of Pediatrics at Cornell University Medical College. Dr. Stoner is a member of the board of directors of Metabasis Therapeutics, Inc. Dr. Stoner received her B.S. in Chemistry from Ottawa University, KS, her M.S. in Chemistry from the State University of New York at Stony Brook, and her M.D. from Albert Einstein College of Medicine.

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- (1) Member of Audit Committee.
 - (2) Member of Compensation Committee.
 - (3) Member of Nominating and Corporate Governance Committee.
 - (4) Member of Science Committee.

For information relating to shares of our common stock owned by and options granted to each of our directors, see the disclosure set forth under the headings "Executive Compensation—Compensation of Directors" and "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

CORPORATE GOVERNANCE

General

We believe that good corporate governance is important to ensure that Momenta is managed for the long-term benefit of our stockholders. During the past year, we have continued to review our corporate governance policies and practices and to compare them to those suggested by various authorities in corporate governance and the practices of other public companies. We have also continued to review the provisions of the Sarbanes-Oxley Act of 2002, the new and proposed rules of the Securities and Exchange Commission and the listing standards of the NASDAQ Global Market.

This section describes key corporate governance practices that we have adopted. Complete copies of our corporate governance guidelines, committee charters and code of conduct described below are available on the "Corporate Governance" section of our website at www.momentapharma.com. Alternatively, you may request a copy of any of these documents by writing to Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, Massachusetts 02142, attention: Richard P. Shea, Chief Financial Officer and Treasurer, telephone: (617) 491-9700.

Corporate Governance Guidelines

Our board of directors has adopted corporate governance guidelines to assist our board of directors in the exercise of its duties and responsibilities and to serve the best interests of Momenta and its stockholders. These guidelines, which provide a framework for the conduct of the board of directors' business, provide that:

- the principal responsibility of the directors is to oversee the management of Momenta;
- a majority of the members of the board of directors shall be independent directors;
- the independent directors meet periodically in executive session;
- directors shall have full and free access to management and, as necessary and appropriate, independent advisors;
- new directors shall participate in an orientation program and all directors are expected to participate in continuing director education on an ongoing basis; and
- at least annually the board of directors and its committees will conduct a self-evaluation to determine whether they are functioning effectively.

Board Determination of Independence

Under applicable NASDAQ 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 which 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 Peter Barrett, John K. Clarke, Marsha H. Fanucci, Peter Barton Hutt, Stephen T. Reeders, Bennett M. Shapiro or Elizabeth Stoner, who currently comprise our audit, compensation and nominating and corporate governance committees, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under Rule 4200(a)(15) of the NASDAQ Marketplace Rules. Our board reached a similar determination with respect to Paul Goldenheim, who served as a director from May 2006 until May 2007.

In determining the independence of the directors listed above, our board of directors considered each of the transactions discussed in "Certain Relationships and Related Transactions."

Board Meetings and Attendance

Our board of directors met 13 times during the fiscal year ended December 31, 2007, or Fiscal 2007, either in person or by teleconference. During Fiscal 2007, each director, with the exception of Peter Barton Hutt, Robert S. Langer, Jr., Stephen T. Reeders and Elizabeth Stoner 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. Mr. Hutt attended 75% of the regularly scheduled quarterly meetings of the board of directors and attended 67% of the special meetings of the board of directors. Dr. Langer attended 75% of the regularly scheduled quarterly meetings of the board of directors and attended 56% of the special meetings of the board of directors. Dr. Reeders attended 100% of the regularly scheduled quarterly meetings of the board of directors and attended 67% of the special meetings of the board of directors. Dr. Stoner joined the board of directors in October 2007 and was able to attend only one of the two board meetings held after her election.

Director Attendance at Annual Meetings of Stockholders

Our corporate governance guidelines provide that directors are responsible for attending the annual meeting of stockholders. With the exception of Dr. Langer, all of our directors attended the 2007 annual meeting of stockholders.

Board Committees

Our board of directors has established four standing committees—audit, compensation, nominating and corporate governance and science—each of which operates under a charter that has been approved by our board of directors. Current copies of the audit, compensation and nominating and corporate governance committee charters are posted on the Corporate Governance section of our website located at www.momentapharma.com.

Our board of directors has determined that all of the members of each of the board of directors' standing committees (except the science committee) are independent as defined under the rules of the NASDAQ Stock Market, Inc. including, in the case of all members of the audit committee, the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Audit Committee

The audit committee currently consists of Marsha H. Fanucci, John K. Clarke and Stephen T. Reeders. Ms. Fanucci chairs the audit committee. The audit committee was reconstituted in March 2004 and currently acts under a charter that was adopted and approved effective in June 2004 and that was amended and restated in each of December 2006 and March 2007. The audit committee held nine meetings in Fiscal 2007. It is anticipated that Ms. Fanucci, if elected to the board of directors by our stockholders, and Mr. Clarke will continue to serve on the audit committee. We are actively recruiting potential candidates to serve on the committee upon Mr. Reeders's departure. Our audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of certain reports from such firm;
- reviewing and discussing with management our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting and disclosure controls and procedures;

- discussing our risk management policies;
- establishing policies regarding hiring employees from the independent registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our independent registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by Securities and Exchange Commission rules (which is included on page 62 of this proxy statement).

Our board of directors has determined that each of Marsha H. Fanucci and John K. Clarke is an "audit committee financial expert" as defined by applicable Securities and Exchange Commission rules.

Compensation Committee

The compensation committee currently consists of Peter Barrett, Peter Barton Hutt, Bennett M. Shapiro and Elizabeth Stoner. Mr. Barrett chairs the compensation committee. The compensation committee was reconstituted in March 2004 and currently acts under a charter that was adopted and approved effective in June 2004 and that was amended restated in March 2007. The compensation committee held 12 meetings in Fiscal 2007. It is anticipated that Mr. Hutt, if elected to the board of directors by our stockholders, and Drs. Barrett, Shapiro and Stoner will continue to serve on the compensation committee. Our compensation committee's responsibilities include:

- annually reviewing and approving corporate goals and objectives relevant to compensation of our chief executive officer, or CEO;
- determining the CEO's compensation;
- reviewing and approving, or making recommendations to the board of directors with respect to, the compensation of our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our equity incentive plans;
- reviewing and making recommendations to the board of directors with respect to director compensation;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis," which is included beginning on page 18 of this proxy statement; and
- preparing the compensation committee report required by Securities and Exchange Commission rules, which is included on page 50 of this proxy statement.

The processes and procedures followed by our compensation committee in considering and determining executive and director compensation are described below under the heading "Executive and Director Compensation Processes."

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee currently consists of Peter Barton Hutt, Peter Barrett and Bennett M. Shapiro. Mr. Hutt chairs the nominating and corporate governance committee. The nominating and corporate governance committee was established in March 2004 and currently acts under a charter that was adopted and approved effective in June 2004 and that was amended in September 2006. The nominating and corporate governance committee held eight meetings in Fiscal 2007. It is anticipated that Mr. Hutt, if elected to the board of directors by our stockholders,

and Drs. Barrett and Shapiro will continue to serve on the nominating and corporate governance committee. Our nominating and corporate governance committee's responsibilities include:

- identifying individuals qualified to become board members;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- reviewing and making recommendations to the board of directors with respect to management succession planning;
- reviewing and assessing our code of business conduct and ethics;
- developing and recommending to the board of directors corporate governance principles; and
- overseeing an annual evaluation of the board of directors.

The processes and procedures followed by our nominating and corporate governance committee in identifying and evaluating director candidates are described below under the heading "Director Nomination Process."

Science Committee

Our science committee currently consists of Bennett M. Shapiro, Robert S. Langer, Jr., Ram Sasisekharan and Elizabeth Stoner. Dr. Shapiro chairs the science committee. The science committee was established in March 2007 and currently acts under a charter that was adopted and approved effective in April 2007. The science committee held five meetings in Fiscal 2007. Our science committee's responsibilities include:

- reviewing the scientific, clinical, regulatory and intellectual property strategies that underlie our major research and development programs;
- reviewing the annual research and development budget and allocation of resources to certain of our programs;
- reviewing the organization and structure of the research and development organization; and
- assessing the attainment of research and development milestones.

Executive and Director Compensation Processes

Our compensation committee has implemented an annual performance review program for our executives focused around annual corporate goals that are proposed by management, reviewed by the compensation committee and approved by the board of directors. These corporate goals target the achievement of specified operational and financial goals; specific research, clinical, regulatory, commercial or compliance milestones; and business development and financing initiatives. Individual performance is evaluated in part by reviewing the extent to which such performance facilitates the achievement of our annual corporate and business goals. Annual salary increases, individual components of annual incentive cash bonus awards and equity awards for each of our Named Executives are tied to a combination of achievement of corporate goals and individual performance.

During the first calendar quarter of each year, we evaluate individual performance as well as corporate performance against the corporate goals for the recently completed year. Each executive's evaluation begins with a written self-assessment, which is submitted to the CEO. The CEO then prepares a written evaluation based on the executive's self-assessment, the CEO's own evaluation and input from others within Momenta. This process leads to a recommendation by the CEO and our Vice President, Human Resources with respect to salary increases, annual incentive cash bonus awards and equity awards for each of our Named Executives, which is then reviewed and approved by the

compensation committee. In the case of the CEO, his individual performance evaluation is conducted by the compensation committee, utilizing input from the board of directors and from selected executive officers in connection with an annual 360-performance review, which determines his compensation changes and awards. For all executives, annual base salary increases, annual incentive cash bonus awards and annual stock option grants and restricted stock awards, to the extent granted, are implemented during the first calendar quarter of the year.

The compensation committee has delegated to Craig A. Wheeler, our CEO, the authority to make stock option grants under our 2004 Stock Incentive Plan, as amended, to newly-hired employees below the senior director level based on a number of options within a range as set forth in a matrix previously approved by the board of directors. Grants to newly-hired employees, whether made either by the CEO or by the compensation committee, are made on regularly scheduled monthly dates that occur outside of regularly scheduled quarterly financial blackout periods.

The compensation committee has the authority to retain compensation consultants and other outside advisors to assist in the evaluation of executive officer compensation. To assist the compensation committee in discharging its responsibilities, in March 2007 the compensation committee retained an independent compensation consultant, Radford Surveys & Consulting, a business unit of AON Corporation, which we refer to as Radford, to evaluate certain aspects of our compensation practices and to assist in developing and implementing our incentive compensation program. Radford provided research regarding best practices, advice on the appropriate strategic use of reward vehicles, performed analyses of competitive compensation levels, assisted in our promotion process and advised on the use of restricted stock for key talent. With this information, our management developed recommendations for Fiscal 2007 that were reviewed and approved by the compensation committee in connection with formulating and approving compensation awards.

Director Nomination Process

The process followed by our 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 nominating and corporate governance committee and other members of the board of directors, as applicable. In addition, during Fiscal 2007, the nominating and corporate governance committee used the services of an executive search firm to help identify and evaluate potential director candidates.

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 applies the criteria attached to its charter. These criteria include 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 nominating 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 of directors 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 Steven N. Avruch, Esq., Corporate Secretary, Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, Massachusetts 02142. Assuming that

appropriate biographical and background material has been provided on a timely basis, the nominating and corporate governance 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 directly nominate director candidates, without any action or recommendation on the part of the nominating and corporate governance committee or the board of directors, by following the procedures set forth under Section 1.10, "*Nomination of Directors*," in our amended and restated bylaws that are described under the heading "Stockholder Proposals."

In October 2007, Elizabeth Stoner was appointed by our board of directors as a new director. Dr. Stoner was originally proposed to the nominating and corporate governance committee by a member of our board of directors.

Communicating with the Independent Directors

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

Under procedures approved by a majority of the independent directors, communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the chairman of the board considers to be important for the directors to know. In general, communications relating to corporate governance and 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 of directors should address such communications to board of directors c/o Steven N. Avruch, Esq., Corporate Secretary, Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, Massachusetts 02142.

Code of Business Conduct and Ethics

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We have posted a current copy of the code on our website, which is located at www.momentapharma.com. In addition, we intend to post on our website all disclosures that are required by law or NASDAQ Global Market listing standards concerning any amendments to, or waivers from, any provision of the code.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act 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 our review of copies of Section 16(a) reports furnished to us and representations made to us, we believe that, except as set forth below, during Fiscal 2007 our officers, directors and holders of more than 10% of our common stock complied with all Section 16(a) filing requirements:

- a late Form 4 report was filed for Ganesh Venkataraman on May 25, 2007 to report the grant of an option to purchase 15,000 shares of our common stock on February 22, 2007;
- a late Form 4 report was filed for Steven B. Brugger on May 25, 2007 to report the grant of an option to purchase 22,500 shares of our common stock on February 22, 2007;
- a late Form 4 report was filed for Richard P. Shea on May 25, 2007 to report the grant of an option to purchase 7,000 shares of our common stock on February 22, 2007;
- a late Form 4 report was filed for John E. Bishop on March 22, 2007 to report the grant of an option to purchase 37,500 shares of our common stock on February 22, 2007;
- a late Form 4 report was filed for Stephen T. Reeders on March 28, 2007 to report the sale of 242,466 shares of our common stock and the distribution of 430,000 shares by MVM International Life Sciences Fund No. 1 L.P. of our common stock on January 10, 2007;
- a late Form 4 report was filed for Richard P. Shea on December 20, 2007 to report the grant of an option to purchase 15,000 shares of our common stock and an award of 15,000 shares of restricted common stock on August 15, 2007; and
- a late Form 5 report was filed for John K. Clarke on April 22, 2008 to report the gift of 4,400 shares of our common stock on December 15, 2005 and the acquisition of 2,026 shares of our common stock on November 20, 2006.

Our Executive Officers

The following table sets forth the names, ages and positions of our current executive officers as of April 15, 2008:

Name	Age	Position	Held Position Since
Craig A. Wheeler	47	President and Chief Executive Officer	August 2006 September 2006
Richard P. Shea(1)	56	Senior Vice President and Chief Financial Officer	July 2007 (Vice President and Chief Financial Officer October 2003–July 2007)
Ganesh Venkataraman, Ph.D.(2)	41	Chief Scientific Officer, Senior Vice President, Research	September 2007 April 2005 (Vice President, Technology January 2002–April 2005)
Steven B. Brugger(3)	49	Chief Operating Officer	September 2007 (Senior Vice President, Strategic Business Operations April 2005–September 2007; Vice President, Strategic Product Development August 2002–April 2005)
John E. Bishop, Ph.D.(4)	46	Senior Vice President, Pharmaceutical Sciences	December 2006 (Vice President, Pharmaceutical Sciences and Manufacturing November 2004–December 2006)
James M. Roach, M.D.(5)	48	Senior Vice President, Development, Chief Medical Officer	February 2008

- (1) *Richard P. Shea* has been our Senior Vice President and Chief Financial Officer since July 2007. From October 2003 until July 2007 he served as Vice President and Chief Financial Officer. From April 2002 to April 2003, Mr. Shea served as Chief Operating Officer for Variagenics, Inc., a pharmacogenomics company. From March 2000 to April 2002, Mr. Shea served as Variagenics' Chief Financial Officer and from February 1999 to March 2000, he served as Vice President, Finance and Administration. While at Variagenics, Mr. Shea was responsible for finance, legal, investor relations, human resources and operations. Mr. Shea is a CPA and received his A.B. from Princeton University and his M.B.A. from Boston University.
- (2) *Ganesh Venkataraman, Ph.D.* is a co-founder of our company and has been our Chief Scientific Officer since September 2007 and our Senior Vice President, Research since April 2005. From January 2002 until April 2005 he served as Vice President, Technology. From August 2000 to January 2003, Dr. Venkataraman served as the Director of Bioinformatics for the Consortium for Functional Glycomics, a multi-million dollar NIH initiative to study the role of complex sugars in biology. From March 1995 to July 2000, Dr. Venkataraman was a research faculty member at the Harvard M.I.T. division of Health and Sciences and Technology, where he investigated the biochemistry and biophysics of carbohydrates and research in the area of analytical techniques for complex carbohydrates. Dr. Venkataraman received his M.S. and Ph.D. in Chemical Engineering from the Massachusetts Institute of Technology.

- (3) *Steven B. Brugger* has been our Chief Operating Officer since September 2007. He served as Senior Vice President, Strategic Business Operations from April 2005 until September 2007 and as Vice President, Strategic Product Development from August 2002 to April 2005. From 2000 to August 2002, Mr. Brugger served as a Vice President for Millennium Pharmaceuticals, Inc., a biopharmaceutical company, and from October 1999 through 2000 he served as a Senior Director. While at Millennium, Mr. Brugger built Millennium's strategic marketing, project management and portfolio management capabilities. During his tenure at Millennium, Mr. Brugger served as Head of Commercial Development, General Manager of the Inflammation and Metabolic Business Units, and Development Projects Leader for the Aventis and Abbott collaborations. Prior to joining Millennium, Mr. Brugger worked for 19 years in the pharmaceutical industry, with his most recent position being as an Executive Director, Marketing at Novartis Pharmaceuticals. Mr. Brugger received his B.A. in Biology from Susquehanna University and his M.B.A. from Rutgers University.
- (4) *John E. Bishop, Ph.D.* has been Senior Vice President, Pharmaceutical Sciences since December 2006. He served as Vice President, Pharmaceutical Sciences and Manufacturing from November 2004 to December 2006. From August 2000 to October 2004, Dr. Bishop served as Director and Head of Process Development (Chemical and Biologics) at Millennium Pharmaceuticals, Inc. During that period, he also led the Chemistry, Manufacturing and Controls (CMC) team for Velcade®. From July 1994 to August 2000, Dr. Bishop was a Process R&D leader at the DuPont Merck Pharmaceutical Company, with responsibility for the division's process development, technology transfer, and vendor management activities. Dr. Bishop received his B.S. magna cum laude in Chemistry and German from Tufts University, his Ph.D. in Organic Chemistry from UC Berkeley and his M.B.A. from Northeastern University.
- (5) *James M. Roach, M.D.* has been Senior Vice President, Development and Chief Medical Officer since February 2008. From January 2006 to February 2008, Dr. Roach served as Senior Vice President, Medical Affairs at Sepracor Inc., where he also served as Vice President, Medical Affairs from July 2002 to December 2005 and as Executive Medical Director, Medical Affairs from January 2002 to June 2002. Dr. Roach has also held senior clinical research and/or medical affairs positions at Millennium Pharmaceuticals, Inc., LeukoSite, Inc., Medical and Technical Research Associates, Inc. and Astra USA, where he began his career in the industry in September 1995. Dr. Roach is board certified in Internal Medicine, Pulmonary Disease, and Critical Care Medicine and is an Assistant Clinical Professor of Medicine at Harvard Medical School and an Associate Physician at Brigham and Women's Hospital. Dr. Roach received his B.A. in biology and philosophy from the College of the Holy Cross and his M.D. from Georgetown University School of Medicine. He completed his residency in Internal Medicine and fellowship in Pulmonary and Critical Care Medicine at the Walter Reed Army Medical Center in Washington, D.C.

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Executive Summary

During Fiscal 2007, Momenta achieved significant accomplishments, but also faced a number of business and regulatory challenges. The accomplishments included: consummating the acquisition of Parivid LLC; negotiating and finalizing our second collaboration with Sandoz; and advancing our M118 and M356 programs. The challenges included: reacting, and preparing to respond, to the FDA's request for additional data to address the potential for immunogenicity of our M-Enoxaparin candidate; subleasing our 300 Third Street facility amid cash conservation pressures; and the need to continue to upgrade our infrastructure in many areas. Details of many of these challenges can be found in our Form 10-K, Form 10-Q and Form 8-K filings.

In response to these challenges, we believed that there was a critical need to build employee morale as well as to build trust with our public stockholders. Our board of directors determined that we needed to take steps to continue to transform Momenta into a high-performing company that could provide value to stockholders over the long term. As part of this process, our board of directors made changes in our senior leadership. In July 2007, Richard P. Shea, who had been our Vice President and Chief Financial Officer, was promoted to Senior Vice President and Chief Financial Officer. In September 2007, we announced that Steven Brugger had been appointed as Chief Operating Officer; Mr. Brugger had served as our Senior Vice President, Strategic Product Development from August 2002 to April 2005. Also in September 2007, Ganesh Venkataraman, our Senior Vice President, Research, was promoted to the position of Chief Scientific Officer and Senior Vice President, Research.

We also made significant changes in our policies and procedures in the area of executive compensation, including redesigning our compensation program, adopting stock ownership guidelines and recommending entering into employment agreements with members of our senior leadership team. See "Redesign of the Compensation Program in 2007," "Stock Ownership Guidelines" and "—Executive Employment Agreements with Richard P. Shea, Ganesh Venkataraman, Steven B. Brugger and John E. Bishop" below for details. These changes were prompted in large measure by an independent review of our historic compensation practices conducted by our compensation committee and Radford Surveys & Consulting, a business unit of AON Corporation, which we refer to as Radford.

Redesign of the Compensation Program in 2007

In 2007, our compensation committee determined that the executive compensation program should be redesigned to:

- link pay to performance (measured on the corporate as well as individual level);
- reinforce business strategy and reflect and reinforce Momenta's values;
- reward teamwork and integrity;
- motivate our people to achieve meaningful results in support of our company goals;
- keep things simple to promote understanding and enable employees to make informed decisions; and
- retain our management team and other employees.

The objectives of our redesigned executive compensation program are to align the interests of management with the interests of stockholders through a system that correlates compensation to enterprise objectives and, to a lesser extent, individual performance. Our program is geared for short and long-term performance, with the goal of increasing stockholder

value over the long term. We also

emphasize retention in our program. The life sciences industry is science-focused and driven by innovation, and as a result, Momenta believes that executives with industry knowledge are more likely to excel, but this limits the recruiting pool and makes retention a higher priority than might be the case in industry generally.

Our executive compensation philosophy is based on the following principles:

- *Competitive and Fair Compensation.* We believe that the performance of our Named Executives should be viewed, and their overall compensation should be determined, in the context of our industry, the competitive landscape and our performance. While we do not have an exact formula for allocating between cash and non-cash compensation, we try to balance short-term cash compensation and long-term equity by offering reasonable base salaries, market-competitive benefits, annual incentive cash bonuses and opportunities for financial growth through our stock option and other equity incentive programs. These components are established separately and viewed distinctly by our compensation committee. For example, a given level of cash compensation does not reduce or offset awards of equity compensation.
- *Sustained Performance.* In determining total compensation, we stress a philosophy that is performance driven. Our Named Executives are primarily rewarded based upon an assessment of corporate performance and secondarily on individual performance. Corporate performance is evaluated by reviewing the extent to which established corporate goals are met. Individual performance is evaluated by reviewing how each Named Executive contributed in the context of overall corporate goals. Our compensation philosophy emphasizing performance permeates total compensation for both executives and non-executives. We believe that the design of our executive compensation program affects all of our employees and, because the performance of every employee is important to our success, we are cognizant of the effect that executive compensation may have on each member of our team.

In redesigning and formalizing our compensation program, in February 2007, Radford and our compensation committee focused predominantly on two areas of compensation: our annual incentive cash bonus program and our equity award program. With respect to our bonus program, Radford gathered competitive data from the Radford Biotechnology Executive Survey, focusing on companies with 150 to 499 employees. Specifically, Radford evaluated the prevalence of formalized bonus plans, the cost of such programs as a percentage of payroll, the incidence of minimum/maximum levels of performance and associated payout, the number of issuers that employed metric weighting between company and individual performance and the timing and performance period for short-term incentive awards. Whereas our historical cash bonus program was primarily linked to individual performance, the survey data showed that most short-term incentive programs weighted corporate performance as approximately 60% of the bonus opportunity, 98% of these programs used a percentage of salary as the basis for determining target bonuses and almost all companies paid bonuses annually with awards paid for the prior twelve months of performance. With that data as a backdrop, our 2007 annual cash incentive program was designed to reward our CEO solely on corporate performance based on metrics defined by management and approved by our board of directors and, with respect to executives below the CEO level, 75% in relation to corporate performance and 25% based on individual contribution toward those corporate goals.

With respect to our equity award program, Radford reviewed information from the 2006 Radford Biotechnology Stock by Level Equity Report and evaluated 21 peer companies to better understand aggregate equity use and executive long-term incentive awards. The specific "peer companies" evaluated included:

Acadia Pharmaceuticals	Atherogenics, Inc.	Maxygen, Inc.
Adolor Corporation	CombinatoRx, Incorporated	Metabasis Therapeutics
Alnylam Pharmaceuticals	Cytokinetics Incorporated	Pharmion Corporation
Altus Pharmaceuticals	Exelixis, Inc.	Progenics Pharmaceuticals
Ariad Pharmaceuticals	Indenix Pharmaceuticals	Rigel Pharmaceuticals
Array Biopharma	Incyte Corporation	Seattle Genetics, Inc.
Aspreva Pharmaceuticals Corp.	Inspire Pharmaceuticals	XenoPort, Inc.

A regression analysis was used to determine appropriate long-term incentive values by grade, drawing upon the average salary level for each grade, and competitive data were collected for Black-Scholes equity value and number of options. It was noted that due to our hiring needs, our 2006 equity burn rate exceeded the 75th percentile; however, both issued and total stock overhang trailed the market 50th percentile. Based on the data reviewed, Radford and our compensation committee determined that our forward-looking long-term incentive program must balance multiple considerations, including building a management team for the future, retaining key employees and anticipating future business outlook, while adhering to a target burn rate, program guidelines based on market competitive practices of broad life sciences companies and the appropriate mix of equity vehicles. We grant stock options to executives and other employees upon commencement of employment. The size of the initial stock option grant has been determined by reference to a pre-set range approved by our board of directors generally intended to reflect the level of the employee's position. We also make annual performance grants, and those grants have also been made pursuant to a pre-set range approved by our board of directors and have been intended to reflect the level of the employee's position with us as well as individual performance relative to his or her goals and generally represent approximately 10% of the employee's initial grant. On a going forward basis, it was determined that initial stock option grants would be reduced and that the range for annual performance grants would be expanded to allow for larger annual grants.

Radford also reviewed the salary structure for our Named Executives and other employees. For our Named Executives, Radford based its review on a blend of market data and proxy data from a positional perspective. For non-executive positions, Radford differentiated between scientific and non-scientific positions based upon departmental assignments. Radford concluded that base salaries were generally in the 50th percentile and it was determined that no change would be made in base salaries, although Radford recommended a review of market data to determine merit increases in salary later in 2007. In order to determine the appropriate target level for company-wide salary increases for 2008, we obtained survey data from the following sources: WorldatWork Budget Survey 07/08; Mercer 2007/2008 U.S. Compensation Planning; ERI Salary Increase Survey 2008; Compdata Survey (Merit Only); Hewitt Associates (est); and Radford Life Sciences. These surveys were utilized to assure that our proposed merit salary increases were market competitive. The projected merit salary increases for 2008 contained in five of the six surveys were between 3.8% and 4.0% of current base salaries of all exempt employees. The average projected merit salary increase for executives was slightly above 4.0%. Using this data, we set a target level of merit salary increase at 4.0%.

We do not use "internal pay equity" as a constraint on compensation paid to our CEO or other Named Executives. Such systems typically put a ceiling on part or all of an executive's compensation based on a specified multiple of compensation awarded to another executive or a class of employees of Momenta. Our management and our compensation committee do not believe that such arbitrary limitations are an appropriate way to make compensation decisions for our executives. Instead, we rely

on the judgment of the compensation committee, after considering recommendations from management and external advisors, available market data and evaluations of executive performance, in the context of a program that is weighted heavily in favor of performance-based compensation for our Named Executives.

Stock Ownership Guidelines

In September 2007, our board of directors, upon recommendation of the compensation committee, approved a stock ownership and retention program for our executive officers and non-employee directors, or Covered Individuals. The purpose of the program is to ensure that each Covered Individual has a long-term equity stake in Momenta, to more closely align the interests of the Covered Individuals with those of our stockholders and to further promote our commitment to sound corporate governance.

Under the program's guidelines, (i) our President and CEO is expected to hold shares of our common stock having an aggregate value equal to or greater than three times his or her annual base salary, (ii) other executive officers are expected to hold shares of our common stock having an aggregate value equal to or greater than one time their annual base salary and (iii) non-employee directors are expected to hold shares of our common stock having an aggregate value equal to or greater than three times their then current annual retainer for general board membership, excluding subcommittee retainers, per meeting or other similar fees.

The Covered Individuals are expected to comply with these guidelines by the later of March 31, 2013 and the fifth anniversary that each such person becomes a Covered Individual. Until the applicable minimum share requirement is achieved, each Covered Individual is required to retain all shares of restricted stock upon the lapse of vesting restrictions, net of shares surrendered or sold to pay applicable withholding taxes. Once a Covered Individual has met these guidelines, he or she must continue to satisfy the guidelines so long as he or she remains a Covered Individual. Each Covered Individual's satisfaction of the minimum share requirement will be measured on an annual basis. Shares that count toward satisfaction of the guidelines include:

- shares of common stock owned outright by the Covered Individual or his or her spouse or minor children;
- shares of common stock held in trust for the benefit of the Covered Individual or his or her spouse or minor children; and
- restricted stock or restricted stock units for which applicable restrictions have lapsed.

The minimum share requirement may be waived, at the discretion of the compensation committee, if compliance would create severe hardship, would prevent a Covered Individual from complying with a court order, as in the case of a divorce settlement, or when a Covered Individual attains the age of 62.

Determining Executive Compensation (Roles and Process)

Utilizing the philosophy outlined above, our compensation committee determines the parameters of the executive compensation program, including appropriate target levels and performance measures, and administers our executive compensation program. This section discusses, in greater detail, the roles and process underlying the application of our executive compensation philosophy.

Role of CEO in Compensation Decisions

The CEO's role in the compensation process begins with the establishment of our corporate and business performance objectives against which the payment of annual incentive bonus awards will be measured. Our CEO, together with our executive team, discusses and formulates annual corporate and

business goals. These goals are presented to our compensation committee who refines the goals and recommends them for approval by our board of directors. The CEO's role in the compensation process continues with his review of our Named Executives. Our CEO elicits 360-performance reviews with respect to each of our Named Executives. These 360-performance reviews are written evaluations of each Named Executive that are submitted to our CEO by our employees who interact with these Named Executives. The CEO then assimilates the feedback from these 360-performance reviews into formal written evaluations of each Named Executive, including the CEO's own evaluation of the Named Executive. The CEO's evaluation also included documenting each Named Executive's performance during the year, detailing accomplishments, areas of strength and areas for development pursuant. The CEO bases this evaluation on his knowledge of each Named Executive's performance and feedback provided by the 360-performance reviews. Each Named Executive is then rated based on their performance during the year. The CEO then sits down with each Named Executive and reviews their respective evaluations. The CEO then works directly with our Vice President, Human Resources to provide comprehensive recommendations for salary increases, individual components of annual incentive cash bonus awards and equity awards for each of our Named Executives. These recommendations are presented to, reviewed by and ultimately approved by our compensation committee.

At the request of the compensation committee, our CEO attends all or portions of periodic meetings of the compensation committee, but does not attend portions of any meeting in which the compensation committee discusses his compensation or performance. In addition, our compensation committee reviews the recommendations from our CEO with respect to executive compensation trends among biotechnology companies, including the overall blend of salary, bonus and equity compensation within such group and his recommendations pertaining to our executive compensation program.

Role of the Compensation Committee

Our compensation committee recognizes the importance of maintaining sound principles for the development and administration of our compensation program which is intended to strengthen the link between executive pay and performance. The compensation committee, in accordance with its written charter, oversees all aspects of our director, officer and other executive compensation policies. Based on the process described in "*Role of CEO in Compensation Decisions*," the CEO, together with our Vice President, Human Resources, makes a recommendation to the compensation committee on each Named Executive's compensation, except his own. Named Executives do not propose or seek approval for their own compensation. The compensation committee then determines the compensation of each of these Named Executives. The compensation committee also evaluates the CEO's performance and determines the CEO's compensation utilizing input from the board of directors and from selected executive officers in connection with an annual 360-performance review.

Role of External Advisors

To assist the compensation committee in discharging its responsibilities, in February 2007, our compensation committee retained an independent compensation consultant, Radford, to evaluate certain aspects of our compensation practices and to assist in developing and implementing our incentive compensation program. Radford provided research regarding best practices, advice on the appropriate strategic use of reward vehicles, performed analyses of competitive compensation levels, assisted in our promotion process and advised on the use of restricted stock for key talent. As part of this process, members of the compensation committee reviewed materials provided and had the opportunity to meet independently with Radford at anytime throughout the year to discuss our executive compensation and to receive input and advice. Any written reports and studies provided by Radford are provided to the compensation committee. As compensation for services in 2007, we paid

Radford a total of \$96,530. Radford reported directly to the compensation committee and did not provide any other services to us other than those described in this section.

We have not retained any other compensation consultant to review our policies and procedures relating to executive compensation. We expect that from time to time our compensation committee will engage one or more consultants to provide advice and resources.

Elements of Compensation

Our compensation program is designed to reward each Named Executive based upon a combination of corporate and individual performance. Corporate performance is evaluated by reviewing the extent to which pre-set goals are met, which generally include the achievement of: specified operational and financial goals; specific research, clinical, regulatory, commercial or compliance milestones; and business development and financing initiatives. We evaluate individual performance in part by reviewing the extent to which individual performance facilitated the achievement of the corporate and business goals discussed above.

The compensation package offered to each Named Executive is comprised of a combination of:

- base salary;
- annual incentive cash bonus awards;
- annual equity awards;
- other benefits, such as health, dental, disability and life insurance; and
- severance and change-of-control payments.

We maintain broad-based benefits that are provided to eligible employees, including health, dental, life and disability insurance and a 401(k) plan. Our Named Executives are eligible to participate in all of our employee benefit plans, in each case on the same basis as other employees.

Base Salary. Base salaries are established for our Named Executives at levels that are intended to reflect the scope of each Named Executive's industry experience, knowledge and qualifications, salary levels in effect for comparable positions within peer companies within our industry and internal comparability considerations. We believe that base salaries are a fundamental element of our executive compensation program. Base salaries are reviewed at least annually by our compensation committee, and are adjusted from time to time to ensure that our executive compensation structure remains aligned with our compensation objectives and are based upon various subjective criteria and the compensation paid by peer-group companies. Subjective performance criteria include an executive's ability to lead through motivating and inspiring others, to demonstrate the skills necessary to perform effectively in his or her area of responsibility, to recognize and pursue new business opportunities and to initiate programs to enhance our growth and success.

During early 2007, the compensation committee reviewed the salaries of Messrs. Wheeler, Shea, Venkataraman, Brugger and Bishop and determined that no salary adjustment would be made for any of them at that time. In connection with the promotions of Mr. Shea and Mr. Brugger in August 2007 and September 2007, respectively, Radford analyzed competitive market data regarding each of their prospective positions. In assessing the compensation adjustments, the compensation committee considered each of Mr. Shea's and Mr. Brugger's industry knowledge, experience and qualifications. The compensation committee determined that each of Mr. Shea and Mr. Brugger should be positioned within the market 50th percentile competitive range. As a result, in connection with Mr. Shea's promotion in August 2007, his base salary was increased from \$230,000 to \$270,000 and, in connection with Mr. Brugger's promotion in September 2007, his base salary was increased from \$293,907 to \$345,000.

The salaries of the Named Executives were reviewed at the February 22, 2008 meeting of the compensation committee. At that meeting, the compensation committee approved salary increases to be effective January 1, 2008 for our CEO and the other Named Executives as follows:

Name	2007 Base Salary (\$)	2008 Base Salary (\$)	Percentage Increase(1) (%)
Craig A. Wheeler	500,000	515,000	3.0
Richard P. Shea	270,000	280,800	4.0
Ganesh Venkataraman	290,928	302,565	4.0
Steven B. Brugger	345,000	353,280	2.4
John E. Bishop	270,400	283,379	4.8

(1) Based on 2007 year-end base salary.

Annual Incentive Cash Bonus. We use annual incentive cash bonuses to motivate our Named Executives to achieve and exceed specified goals in a time frame that is one year in duration. Annual incentive cash bonuses are determined exclusively on the basis of our achievement of corporate performance targets with respect to our CEO and, with respect to our other Named Executives, 75% in relation to corporate performance targets and 25% based on individual contribution toward those corporate goals.

Our corporate goals are typically focused upon the achievement of specific research, clinical, regulatory, commercial, financial, compliance or operational milestones. These goals are also considered to be conducive to the creation of stockholder value and designed to contribute to our current and future financial success.

Under our annual incentive cash bonus program, corporate goals are proposed by management and approved by the compensation committee and the entire board of directors. Each corporate goal is assigned a percentage value (e.g., 10%, 15%, 20%, etc.) and within each corporate goal there are achievement milestones that are expressed in the following target percentages: 70%, 100% and 130%. Each computed actual level of achievement is rounded up to the nearest whole number. In addition, our compensation committee has the discretion to take into consideration mitigating and/or extraordinary circumstances when determining the level of achievement of goals and related milestones which equates into the bonus pool available for annual incentive bonus awards. The CEO's annual incentive bonus award is completely dependent upon the achievement of corporate goals, and senior vice presidents' and vice presidents' target bonuses are 75% dependent upon the achievement of corporate goals and 25% dependent upon the subjective analysis of their individual performance in relation to the corporate goals. If, for example, we were to achieve 100% of our corporate goals, but only to the extent of the 70% target percentage within each goal, the annual bonus pool for that year would be 70% of the aggregate bonus potential for all participants. That means that the incentive cash

bonus for our CEO would be 70% of his target bonus potential and the maximum that our other Named Executives could receive would be 70% of their respective target bonus potentials (i.e., 75% of their bonus target potential would be awarded at the 70% level based on corporate performance and the maximum additional amount they could receive would be 25% of their bonus target potential at the 70% level after analyzing their individual contribution(s)).

The target bonus potential for the CEO is 60% of base salary, with a maximum bonus opportunity equal to 150% of his base salary. The target bonus potential for the other Named Executives is 30% of base salary for vice presidents, 35% for senior vice presidents and 45% for the chief operating officer. Bonuses, if any, are determined and paid on an annual basis after completion of the fiscal year in which bonuses are earned.

The corporate goals for 2007 were: advancement of the M-Enoxaparin program (15% for approval of the M-Enoxaparin ANDA and 10% for supply chain development); the initiation of Phase 2a clinical trials for M-118 (15%); development of a corporate strategy plan for future development and funding (10%); achievement of financial discipline goals (10%); participation in the debate before Congress regarding potential follow-on biologics legislation (10%); and advancement of our M356 and glycoprotein programs (15% for each program). In early 2008, the CEO, with input from the executive officers, assessed our performance against corporate goals for 2007 and provided recommendations for the 2007 annual incentive cash bonus pool to the compensation committee. The compensation committee then reviewed and discussed these recommendations, taking into account mitigating and/or extraordinary circumstances. After discussion, the compensation committee determined that we had achieved 88% of the 2007 corporate goals, as follows:

Corporate Goal	Percentage Value (%)	Actual Level of Achievement (%)
Approval of M-Enoxaparin ANDA	15	0
Timing of M-Enoxaparin Supply Chain Development: Drug Substance Related	5	130
Timing of M-Enoxaparin Supply Chain Development: Drug Product Related	5	70
Initiation of M118 Phase 2a Clinical Trials	15	100
Develop Corporate Strategy for Future Development and Funding	10	70
Financial Discipline Goals	10	100
Participation in the Debate before Congress regarding Potential Follow-on Biologics Legislation	10	100
Advancement of our M356 Program	15	130
Advancement of our Glycoprotein Programs	15	100
Total	100	88

In addition, the compensation committee in their discretion awarded an additional 3% related to significant achievements during the year which were not set forth in the original 2007 corporate goals, including: assignment (with full cost recovery) of our sublease for laboratory and office space at 300 Third Street, Cambridge, MA; completion of the Parivid asset acquisition; and negotiation and closing of the definitive collaboration agreement with Sandoz AG.

The compensation committee then reviewed each Named Executive's performance recommendation as submitted by the CEO and our Vice President, Human Resources. Our CEO noted

the following key achievements for each Named Executive in analyzing and making his recommendations regarding the remaining component of their respective annual incentive cash bonus awards for Fiscal 2007:

Richard P. Shea, Senior Vice President and Chief Financial Officer

- Successfully recasted rolling forecast and budgets
- Led the development of a risk management plan
- Led the assignment (with full cost recovery) of the sublease of additional office space

Ganesh Venkataraman, Chief Scientific Officer, Senior Vice President, Research

- Led the advancement of the glycoprotein programs
- Key contributor and leader in addressing immunogenicity questions related to M-Enoxaparin
- Successful management of resources between discovery and glycoprotein groups

Steven B. Brugger, Chief Operating Officer

- Developed an effective new operating committee
- Successful management of the Sandoz relationship
- Major contributor and leader in the lobbying initiative

John E. Bishop, Senior Vice President, Pharmaceutical Sciences

- Improved the management team with key senior hires that will play a role in Momenta's long term success
- Instrumental leader in achieving the M356 corporate goal
- Successful management of supplier relationships

After assessing the individual contributions above, the compensation committee awarded the full 25% individual component of the annual incentive cash bonus award to each of Messrs. Shea and Venkataraman and an additional 3.4% for Mr. Brugger and an additional 4.5% for Mr. Bishop.

Based on the 91% corporate goal achievements (weighted 100% for Mr. Wheeler and 75% for all other Named Executives), as well as individual goals (except in the case of Mr. Wheeler), in March 2008, we paid bonuses to our Named Executives (which related to their performances in 2007) representing the following percentages of base salary as of December 31, 2007:

Name	Target Bonus Potential as a Percentage of Base Salary (%)	2007 Bonus Payment (\$)	Percentage of 2007 Base Salary (%)	Percentage of Target Bonus (%)
Craig A. Wheeler	60	273,000	54.6	91.0
Richard P. Shea	35	85,995	31.9	91.0
Ganesh Venkataraman	35	92,660	31.8	91.0
Steven B. Brugger	45	146,575	42.5	94.4
John E. Bishop	35	90,429	33.4	95.5

In January 2008, our board of directors met to establish corporate goals for 2008, which are: addressing the immunogenicity questions raised by FDA related to M-Enoxaparin and obtaining approval of the M-Enoxaparin ANDA (15% and 10%, respectively); advancing our M356, glycoprotein and research programs (15%, 10% and 5%, respectively); commencement of Phase 2b clinical studies

for M118 (10%); advancement of our corporate strategy plan (25%); and achievement of financial discipline goals (10%).

Equity Awards. Compensation for employees, including executive officers, also includes stock option grants designed to align the long-term interests of our employees and our stockholders and to assist in the retention of executives. Furthermore, we believe that equity compensation is a critical component of competitive compensation in the industry in which we operate.

Executives who join us are awarded initial stock option grants. The size of an initial stock option grant is within a pre-set range approved by the board of directors and set forth on a matrix that is generally intended to reflect the level of the employee's position with us. Initial stock option grants typically vest as to 25% of the shares subject to such option one year from the date of grant and 6.25% of the shares subject to such option vest on a quarterly basis thereafter. Annual performance grants are also made pursuant to a pre-set range approved by the board of directors and set forth on a matrix that is generally intended to reflect the level of the employee's position with us as well as an individual's performance relative to his or her goals and other employees at the same performance and position level. These stock option grants are typically made annually in conjunction with the review of individual performance. This review takes place at the beginning of each fiscal year for performance in the previous year, and is reviewed and awarded annually at the regularly scheduled meeting of the compensation committee following completion of company-wide performance reviews. Performance options generally vest quarterly over a four-year period commencing three months from the date of grant.

We have also made restricted stock grants from time to time to certain key employees, our CEO, vice presidents and senior vice presidents. When restricted stock has been granted, the circumstances were carefully evaluated and we focused on factors such as the individual's contribution to Momenta, his or her importance to Momenta and, in some cases, the achievement of key milestones. We have also granted restricted stock to our executives as a compliment to granting stock options, in order to balance the volatility of the price of stock options, as well as to assist with compliance with our stock ownership plan.

For Fiscal 2007 performance, our compensation committee approved annual stock option grants to all of our employees, including the Named Executives, and also approved the award of restricted stock to the Named Executives and certain other key employees based on each individual's level of responsibility and perceived overall contribution to the generation of stockholder value. We do not use a quantitative formula to relate option grants or restricted stock awards to the degree to which an individual achieved his or her goals for a particular year. Goal achievement and non-goal specific activities are factored into making the assessment of an executive's overall contribution. We intend that the annual aggregate value of awards (using the Black Scholes or equivalent valuation methodology) to executives will be set near competitive levels for companies represented in the compensation data we review. Our compensation committee evaluated corporate and individual performance and, in light of the drop in our stock price, chose to grant stock options at the high end of the range in the matrix and to award restricted stock for retention purposes.

The equity awards of the Named Executives were reviewed at the February 22, 2008 meeting of the compensation committee. At that meeting, the compensation committee approved the following equity awards our CEO and the other Named Executives as follows:

Name	Number of Shares of Common Stock Underlying Stock Options(1) (#)	Shares of Restricted Common Stock(2) (#)
Craig A. Wheeler	100,000	75,000
Richard P. Shea	34,750	10,800
Ganesh Venkataraman	34,750	5,000
Steven B. Brugger	40,000	5,000
John E. Bishop	39,963	10,800

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- (1) The shares of common stock underlying these options vest as to 6.25% of the shares at the end of each three-month period after the date of grant.
 - (2) These shares of common stock are subject to a restricted stock agreement, pursuant to which 25% of such shares vest and become free from forfeiture on the first anniversary of the date of grant and an additional 6.25% of the shares vest and become free from forfeiture at the end of each successive three-month period thereafter.

Timing and Pricing of Option Grants. The compensation committee's procedure for timing of equity grants provides assurances that grant timing is not being manipulated to result in a price that is favorable to employees. Commencing in 2007, the annual equity grant date for all eligible employees, including the Named Executives, is the date of the regularly scheduled meeting of the compensation committee following completion of Company-wide performance reviews. The grant date timing is driven by the fact that it coincides with our calendar-year-based performance management cycle, allowing us to deliver the equity awards close in time to performance appraisals, which increases the impact of the awards by strengthening the link between pay and performance.

Aside from the annual equity grant, it is our policy that options will normally be granted:

- to non-employee members of the board of directors, on the date of our annual general meeting each calendar year; and
- to newly-hired employees on regularly scheduled monthly dates after their date of hire, which monthly dates are scheduled outside of quarterly earnings blackout periods.

The compensation committee sets the exercise price of all stock options to equal the closing price of our common stock on NASDAQ Global Market on the day before the annual general meeting in the case of annual non-employee director grants, and the date of grant for all other grants, and under no circumstances will the date on which the grant of an option is recorded in our records precede the date on which such option was actually granted.

Other Elements of Compensation and Perquisites. In order to attract, retain and pay market levels of compensation, we provide our executive officers and other employees the following benefits and perquisites:

Medical Insurance. We provide to each Named Executive, their spouses, domestic partners and children, health, dental and vision insurance coverage that we may from time to time make available to other employees. We pay a portion of the premiums for this insurance for all employees.

Life and Disability Insurance. We provide each Named Executive disability and/or life insurance that we may from time to time make available to other executive employees of the same level of

employment. Our CEO also receives reimbursement for an additional \$3.0 million dollar life and disability policy, capped at a maximum of \$5,000 of reimbursement premium per year.

Defined Contribution Plan. We offer a Section 401(k) Savings/Retirement Plan, or the 401(k) Plan, a tax-qualified retirement plan, to eligible employees. The 401(k) Plan permits eligible employees to defer up to 60% of their annual eligible compensation, subject to certain limitations imposed by the Internal Revenue Code, which we refer to as the Code. The employees' elective deferrals are immediately vested and non-forfeitable in the 401(k) Plan. In any plan year, we will contribute to each participant a matching contribution equal to 50% of the first 6% of the participant's compensation that he or she has contributed to the plan. Our contribution is subject to vesting at the rate of 25% at the end of each year over the first four years of employment. All of our Named Executives participated in the 401(k) Plan during fiscal 2007 and received matching contributions.

Employee Stock Purchase Plan. We also offer an Employee Stock Purchase Plan, or the ESPP, which qualifies under Section 423 of the Code. The ESPP is available to all of our employees, including the Named Executives, who work more than 20 hours in a week and five months during the course of a year. Under the ESPP, eligible participants purchase shares of our common stock at a discount of 15% from the fair market value of the lower of the beginning date or end date of the applicable purchase period. The purchase dates occur on the last business day of January and July of each year. To pay for the shares, each participant may authorize periodic payroll deductions ranging from 1% to 15% of his or her cash compensation, subject to certain limitations imposed by the Code. All payroll deductions collected from the participant during a plan period are automatically applied to the purchase of common stock on that period's purchase date provided the participant remains an eligible employee and has not withdrawn from the ESPP prior to that date.

Other. We make available certain other perquisites or fringe benefits to all eligible employees, including the Named Executives, such as tuition reimbursement, parking fees, professional society dues, gym fees, cell phones and food and recreational fees incidental to official company functions, including board meetings. The CEO is also entitled to financial and tax advice and reimbursement of expenses in connection with using his personal airplane (up to the equivalent amount of a first class commercial fare).

Severance and Change-of-Control Benefits. Pursuant to employment agreements we entered into with Messrs. Shea, Venkataraman, Brugger and Bishop in April 2008, these Named Executives are entitled to specified benefits in the event of the termination of their employment under specified circumstances, including termination without cause and for good reason following a change of control of Momenta.

We believe that severance protections, particularly in the context of a change-of-control transaction, can play a valuable role in attracting and retaining executive officers, are an important part of an executive's compensation and are consistent with competitive practices. Accordingly, we provide such protections for our Named Executives and certain other executive officers. We believe that the occurrence, or potential occurrence, of a change-of-control will create uncertainty regarding the continued employment of our Named Executives. This uncertainty results from the fact that many change-of-control transactions result in significant organizational changes, particularly at the senior executive level. Our practice, in the case of our employment agreements, has been to structure these change-of-control benefits as "double trigger" benefits. In other words, the change of control does not itself trigger benefits; rather, benefits are paid only if the employment of the Named Executive is terminated during the twelve month period after the change of control. We believe a "double trigger" benefit maximizes stockholder value because it prevents an unintended windfall to executives in the event of a friendly change of control, while still providing them appropriate incentives to cooperate in negotiating any change of control in which they believe they may lose their jobs. Because we believe that a termination by the executive for good reason is conceptually the same as a termination by us

without cause, and that in the context of a change-of-control, potential acquirers would otherwise have an incentive to constructively terminate the executive's employment to avoid paying severance, we provide severance benefits in these circumstances. We have provided more detailed information about these benefits, along with estimates of their value under various circumstances, under the captions "—Employment, Severance and Change of Control Arrangements" and "—Potential Termination and Change of Control Payments" below.

Tax and Accounting Considerations

It is generally our policy generally to qualify compensation paid to executive officers for deductibility under section 162(m) of the Code. Section 162(m) generally prohibits us from deducting the compensation of certain executive officers that exceeds \$1,000,000 unless that compensation is based on the satisfaction of objective performance goals. However, we reserve the discretion to pay compensation to our executive officers that may not be deductible.

We account for equity compensation paid to our employees under the rules of Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-Based Payment*, referred to as SFAS 123(R), that requires us to measure and recognize compensation expense in our financial statements for all share-based payments based upon an estimate of their fair value over the service period of the award. We record cash compensation as an expense at the time the obligation is accrued.

Non-Employee Director Compensation

Non-employee director compensation is set by the board of directors at the recommendation of the compensation committee. In 2007, the compensation committee recommended, and our board of directors approved, a new compensation and benefit program for non-employee directors. In developing its recommendations, the compensation committee was guided by the following goals: compensation should fairly pay directors for work required in a company of our size and scope; compensation should align directors' interests with the long-term interest of stockholders; and the structure of the compensation should be simple, transparent and easy for stockholders to understand. At that time, our board of directors determined that each non-employee director would receive an annual retainer and an annual fee for each committee on which the non-employee director served. Our chairman also receives a fee for serving in such position. Our board of directors also approved reimbursement to directors for reasonable and necessary expenses incurred in connection with attendance at meetings of the board of directors and other Company business during 2007.

Upon appointment, each new non-employee director is granted an option to purchase shares of common stock. Upon re-election at our annual meetings of stockholders, each non-employee director is also granted an option to purchase shares of our common stock.

For a further description of the compensation paid to non-management directors for 2007 and to be paid in 2008, see "—Compensation of Directors."

SUMMARY COMPENSATION TABLE

The following table sets forth information regarding compensation earned by our Chief Executive Officer, our Chief Financial Officer and each of our three other most highly compensated executive officers during the fiscal years ended December 31, 2006, or Fiscal 2006, and December 31, 2007. We refer to these executive officers as our "Named Executives" elsewhere in this proxy statement.

Name and Principal Position(1)	Year	Salary (\$)	Bonus (\$)	Stock Awards(2) (\$)	Option Awards(2) (\$)	Non-Equity Incentive Plan Compensation (\$)	All Other Compensation (\$)	Total (\$)
Craig A. Wheeler <i>President, Chief Executive Officer and Director</i>	2007	500,000	—	1,965,286	1,027,696	273,000	483,897(3)	4,249,879
	2006	180,556(8)	108,000(9)	145,176	368,844	—	54,587(10)	857,163
Richard P. Shea <i>Senior Vice President and Chief Financial Officer</i>	2007	254,063	—	14,749	340,470	85,995	10,536(4)	705,813
	2006	230,000	75,900	—	342,276	—	7,580(11)	655,756
Ganesh Venkataraman <i>Chief Scientific Officer, Senior Vice President, Research</i>	2007	290,928	—	1,492,608	390,147	92,660	10,949(5)	2,277,292
	2006	278,400	107,184	1,774,836	369,054	—	7,580(12)	2,537,054
Steven B. Brugger <i>Chief Operating Officer</i>	2007	303,133	—	1,492,608	88,500	146,575	10,601(6)	2,041,418
	2006	279,912	112,664	1,774,836	72,652	—	7,580(13)	2,247,644
John E. Bishop <i>Senior Vice President, Pharmaceutical Sciences</i>	2007	270,400	—	64,798	481,457	90,429	10,674(7)	917,758
	2006	232,648	92,748	2,783	283,879	—	7,577(14)	619,635

(1) The titles noted in this table are the officers' titles as of December 31, 2007.

(2) Valuation based on the dollar amount recognized for financial statement reporting purposes pursuant to SFAS 123(R) with respect to Fiscal 2006 and Fiscal 2007, except that (i) such amounts do not reflect an estimate of forfeitures related to service-based vesting conditions and (ii) with respect to Richard P. Shea, Ganesh Venkataraman, Steven B. Brugger and John E. Bishop, the amounts reported in these columns reflect additional expense resulting from the requirements of the Securities and Exchange Commission to report restricted stock awards and option grants made prior to 2006 using the modified prospective transition method pursuant to SFAS 123(R). The assumptions used by us with respect to the valuation of restricted stock awards and option grants are set forth in Note 4 to our financial statements. The individual awards reflected in the summary compensation table are summarized below.

During Fiscal 2006 and Fiscal 2007, compensation expense was recognized in the 2006 and 2007 financial statements for the following awards of restricted stock to the Named Executives:

Name	Grant Date	Number of Shares Subject to Award(#)	Number of Shares Vested in 2006(#)	2006 Expense Recognized Under SFAS 123(R)(\$)	Number of Shares Vested in 2007(#)	2007 Expense Recognized Under SFAS 123(R)(\$)
Craig A. Wheeler	August 22, 2006	100,000	—	145,176	—	404,500
	January 17, 2007	175,000	—	—	—	1,560,786
Richard P. Shea	August 15, 2007	15,000	—	—	—	14,749
Ganesh Venkataraman	March 7, 2006	200,000	—	1,774,836	—	1,492,608
Steven B. Brugger	March 7, 2006	200,000	—	1,774,836	—	1,492,608
John E. Bishop	December 15, 2006	15,000	—	2,783	3,750	63,482
	December 14, 2007	15,000	—	—	—	1,316

In addition, during Fiscal 2006 and Fiscal 2007, compensation expense was recognized in the 2006 and 2007 financial statements for the following grants of stock options to the Named Executives:

Name	Grant Date	Number of Shares Subject to Options(#)	Number of Shares Vested in 2006(#)	2006 Expense Recognized Under SFAS 123(R)(\$)	Number of Shares Vested in 2007(#)	2007 Expense Recognized Under SFAS 123(R)(\$)
Craig A. Wheeler	August 22, 2006	375,000	—	368,844	117,186	1,027,696
Richard P. Shea	October 28, 2003	108,800	27,200	223,132	27,200	183,900
	March 25, 2004	12,800	3,200	36,950	3,200	30,573
	February 1, 2005	11,250	4,291	18,280	2,812	15,990
	March 7, 2006	18,750	3,516	63,914	8,202	78,023
	February 22, 2007	7,000	—	—	1,312	17,265
	August 15, 2007	15,000	—	—	937	14,719
Ganesh Venkataraman	May 29, 2003	32,000	8,000	11,975	4,000	4,888
	April 7, 2004	7,200	1,800	22,495	1,800	22,495
	February 1, 2005	25,000	6,252	30,918	6,252	30,917
	December 30, 2005	31,200	9,600	303,666	9,600	303,666
	February 22, 2007	15,000	—	—	2,812	28,181
Steven B. Brugger	September 18, 2002	87,040	16,320	22,574	—	—
	May 29, 2003	51,200	12,800	19,160	6,400	7,821
	February 1, 2005	25,000	6,252	30,918	6,252	30,917
	February 22, 2007	22,500	—	—	4,218	46,515
	November 14, 2007	25,000	—	—	—	3,247
John E. Bishop	November 2, 2004	70,000	17,498	106,201	17,499	106,201
	March 7, 2006	50,000	9,375	173,812	12,500	212,179
	December 15, 2006	30,000	—	3,866	7,500	88,187
	February 22, 2007	37,500	—	—	7,031	74,890

- (3) Amount consists of temporary housing expenses of \$38,500, automobile lease expenses of \$7,630, travel related expenses of \$8,416, furniture lease expenses of \$3,449, insurance expenses of \$7,378, appraisal, moving and relocation expenses of \$229,367, tax gross up benefits of \$178,512, 401(k) employer matching contributions of \$6,750, annual parking fees of \$2,700, gym fees of \$44 and disability and group life insurance premiums of \$1,151 paid on Mr. Wheeler's behalf.
- (4) Amount consists of 401(k) employer matching contributions of \$6,750, annual parking fees of \$2,700 and disability and group life insurance premiums of \$1,086 paid on Mr. Shea's behalf.
- (5) Amount consists of 401(k) employer matching contributions of \$6,750, annual parking fees of \$2,700, gym fees of \$348 and disability and group life insurance premiums of \$1,151 paid on Mr. Venkataraman's behalf.
- (6) Amount consists of 401(k) employer matching contributions of \$6,750, annual parking fees of \$2,700 and disability and group life insurance premiums of \$1,151 paid on Mr. Brugger's behalf.
- (7) Amount consists of 401(k) employer matching contributions of \$6,750, parking and transit fees of \$2,788 and disability and group life insurance premiums of \$1,136 paid on Mr. Bishop's behalf.
- (8) Represents the pro-rated portion of Mr. Wheeler's base salary of \$500,000 in 2006.
- (9) Pursuant to Mr. Wheeler's employment agreement, for Fiscal 2006 Mr. Wheeler was guaranteed a bonus of up to 60% of his pro-rated base salary as of December 31, 2006, which pro-rated salary totaled \$180,556.
- (10) Amount consists of temporary housing expenses of \$26,916, automobile lease expenses of \$2,364, commuting expenses of \$2,784, airplane fuel expenses of \$1,113, tax gross up benefits of \$21,247 and disability and group life insurance premiums of \$163 paid on Mr. Wheeler's behalf.
- (11) Amount consists of 401(k) employer matching contributions of \$6,600 and disability and group life insurance premiums of \$980 paid on Mr. Shea's behalf.
- (12) Amount consists of 401(k) employer matching contributions of \$6,600 and disability and group life insurance premiums of \$980 paid on Mr. Venkataraman's behalf.
- (13) Amount consists of 401(k) employer matching contributions of \$6,600 and disability and group life insurance premiums of \$980 paid on Mr. Brugger's behalf.

(14) Amount consists of 401(k) employer matching contributions of \$6,600 and disability and group life insurance premiums of \$977 paid on Mr. Bishop's behalf.

FISCAL 2007 GRANTS OF PLAN-BASED AWARDS

The following table sets forth information regarding awards made to our Named Executives during the year ended December 31, 2007:

Name	Type of Award(1)	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(2)			Stock Awards: Number of Shares of Stock (#)	Option Awards: Number of Securities Underlying Options (#)	Exercise Price of Option Awards(9) (\$/Sh)	Grant Date Fair Value of Stock and Option Awards(10) (\$)
			Threshold (\$)	Target (\$)	Maximum (\$)				
Craig A. Wheeler	RS	1/17/2007(3)	—	—	—	175,000	—	—	2,831,500
	AIBP	3/7/2007	—	300,000	750,000	—	—	—	—
Richard P. Shea	SO	2/22/2007(4)	—	—	—	—	7,000	12.81	61,582
	AIBP	3/7/2007	—	94,500	—	—	—	—	—
	SO	8/15/2007(5)	—	—	—	—	15,000	10.41	108,518
	RS	8/15/2007(6)	—	—	—	15,000	—	—	156,150
Ganesh Venkataraman	SO	2/22/2007(4)	—	—	—	—	15,000	12.81	131,961
	AIBP	3/7/2007	—	101,825	—	—	—	—	—
Steven B. Brugger	SO	2/22/2007(4)	—	—	—	—	22,500	12.81	197,942
	AIBP	3/7/2007	—	155,250	—	—	—	—	—
	SO	11/14/2007(7)	—	—	—	—	25,000	5.16	94,568
John E. Bishop	SO	2/22/2007(4)	—	—	—	—	37,500	12.81	329,903
	AIBP	3/7/2007	—	94,640	—	—	—	—	—
	RS	12/14/2007(8)	—	—	—	15,000	—	—	113,100

(1) Type of Award:
AIBP = Annual Incentive Bonus Plan
RS = Restricted Stock
SO = Stock Option

(2) All awards in these columns were granted under our annual incentive cash bonus plan, which was established March 7, 2007. The actual amounts awarded are reported in the "Non-Equity Incentive Plan Compensation" column in the Summary Compensation Table above. See "Executive Compensation—Compensation Discussion and Analysis—Elements of Compensation—Annual Incentive Cash Bonus" for a description of this plan.

(3) These shares of common stock are subject to a restricted stock agreement dated January 17, 2007, pursuant to which all of such shares vest and become free from forfeiture on the achievement of certain performance milestones within a specified time period.

(4) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 22, 2007.

(5) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on November 15, 2007.

(6) These shares of common stock are subject to a restricted stock agreement dated August 15, 2007, pursuant to which 25% of such shares vest and become free from forfeiture on August 15, 2008 and as to an additional 6.25% of the shares vest and become free from forfeiture at the end of each successive three-month period thereafter.

(7) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on February 14, 2008.

(8) These shares of common stock are subject to a restricted stock agreement dated December 14, 2007, pursuant to which 25% of such shares vest and become free from forfeiture on December 14, 2008 and as to an additional 6.25% of the shares vest and become free from forfeiture at the end of each successive three-month period thereafter.

(9) The exercise price of the applicable stock option is equal to the closing price of our common stock as reported by the NASDAQ Global Market on the

date of grant.

- (10) Grant Date Fair Value computed in accordance with SFAS 123(R) represents the aggregate SFAS 123(R) values of common stock issued and options granted.

OUTSTANDING EQUITY AWARDS AT FISCAL 2007 YEAR-END

The following table sets forth information regarding outstanding stock options and awards of restricted stock held by our Named Executives during the fiscal year ended December 31, 2007:

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares That Have Not Vested (#)	Market Value of Shares That Have Not Vested(1) (\$)
Craig A. Wheeler	117,186(2)	257,814	16.18	8/21/2016	100,000(3)	714,000
	—	—	—	—	175,000(4)	1,249,500
Richard P. Shea	108,800(5)	—	0.61	10/27/2013	15,000(6)	107,100
	12,800(7)	—	4.91	3/24/2014	—	—
	7,733(8)	3,517	6.88	1/31/2015	—	—
	8,202(9)	10,548	23.62	3/6/2016	—	—
	1,312(10)	5,688	12.81	2/21/2017	—	—
	937(11)	14,063	10.41	8/14/2017	—	—
Ganesh Venkataraman	32,000(12)	—	0.23	5/28/2013	200,000(13)	1,428,000
	7,200(14)	—(14)	0.99(14)	4/6/2014	—	—
	25,650(14)	5,550(14)	4.91(14)	4/6/2014	—	—
	17,193(15)	7,807	6.88	1/31/2015	—	—
	2,812(16)	12,188	12.81	2/21/2017	—	—
Steven B. Brugger	27,200(17)	—	0.23	9/17/2012	200,000(18)	1,428,000
	28,530(19)	—	0.23	5/28/2013	—	—
	17,193(20)	7,807	6.88	1/31/2015	—	—
	4,218(21)	18,282	12.81	2/21/2017	—	—
	—	25,000(22)	5.16	11/13/2017	—	—
John E. Bishop	29,124(23)	17,501	8.10	11/1/2014	11,250(24)	80,325
	21,875(25)	28,125	23.62	3/6/2016	15,000(26)	107,100
	7,500(27)	22,500	16.94	12/13/2016	—	—
	7,031(28)	30,469	12.81	2/21/2017	—	—

- (1) Based on \$7.14 per share, the last sale price of Momenta common stock on December 31, 2007.
- (2) Represents two option grants made on August 22, 2006, each with an exercise price of \$16.18. The shares of common stock underlying these options vest as to 25% of the shares on August 22, 2007 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- (3) These shares of common stock are subject to a restricted stock agreement dated August 22, 2006, pursuant to which all of such shares vest and become free from forfeiture on August 22, 2010.
- (4) These shares of common stock are subject to a restricted stock agreement dated January 17, 2007, pursuant to which all of such shares vest and become free from forfeiture on the achievement of certain performance milestones within a specified time period.
- (5) The shares of common stock underlying this option vested as to 25% of the shares on October 28, 2004 and as to an

additional 6.25% of the shares at the end of each successive three-month period thereafter.

- (6) These shares of common stock are subject to a restricted stock agreement dated August 15, 2007, pursuant to which 25% of such shares vest and become free from forfeiture on August 15, 2008 and an additional 6.25% of the shares vest and become free from forfeiture at the end of each successive three-month period thereafter.

- (7) The shares of common stock underlying this option vested as to 25% of the shares on October 29, 2004 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- (8) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 1, 2005.
- (9) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on June 7, 2006.
- (10) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 22, 2007.
- (11) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on November 15, 2007.
- (12) The shares of common stock underlying this option vested as to 25% of the shares on May 29, 2004 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- (13) These shares of common stock are subject to a restricted stock agreement dated March 7, 2006, pursuant to which 100,000 of such shares vest and become free from forfeiture on March 7, 2010 and the remaining 100,000 shares vest on the achievement of certain commercialization milestones within a specific time period.
- (14) To avoid adverse tax consequences to Mr. Venkataraman under 409A of the Internal Revenue Code, we and Mr. Venkataraman amended an outstanding stock option to purchase 38,400 shares of common stock with an original exercise price of \$0.99 per share. As amended, the portion of the original option vested as of December 31, 2004, or 7,200 shares, remained in full force and effect and continued to have an exercise price of \$0.99. The remaining portion of such grant was deemed cancelled and a replacement option for the purchase of 31,200 shares was deemed granted to Mr. Venkataraman on December 30, 2005 with an exercise price equal to \$4.91 per share. The shares of common stock underlying this replacement option vested as to 12,000 shares on January 1, 2006 and an additional 6.25% of the shares at the end of each three-month period beginning on April 1, 2006.
- (15) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 1, 2005.
- (16) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 22, 2007.
- (17) The shares of common stock underlying this option vested as to 25% of the shares on September 18, 2003 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- (18) These shares of common stock are subject to a restricted stock agreement dated March 7, 2006, pursuant to which 100,000 of such shares vest and become free from forfeiture on March 7, 2010, and the remaining 100,000 shares vest on the achievement of certain commercialization milestones within a specific time period.
- (19) The shares of common stock underlying this option vested as to 25% of the shares on May 29, 2004 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- (20) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 1, 2005.
- (21) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 22, 2007.
- (22) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on February 14, 2008.

- (23) The shares of common stock underlying this option vested as to 25% of the shares on November 2, 2005 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- (24) These shares of common stock are subject to a restricted stock agreement, pursuant to which 25% of such shares vest and become free from forfeiture on December 15, 2007, and 6.25% of the shares thereunder vest and become free from forfeiture at the end of each three-month period thereafter.

- (25) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on June 7, 2006.
- (26) These shares of common stock are subject to a restricted stock agreement dated December 14, 2007, pursuant to which 25% of such shares vest and become free from forfeiture on December 14, 2008 and as to an additional 6.25% of the shares vest and become free from forfeiture at the end of each successive three-month period thereafter.
- (27) The shares of common stock underlying this option vested as to 25% of the shares on December 15, 2007 and as to an additional 6.25% of the shares at the end of each successive three-month period thereafter.
- (28) The shares of common stock underlying this option vest as to 6.25% of the shares at the end of each three-month period beginning on May 22, 2007.

FISCAL 2007 OPTION EXERCISES AND STOCK VESTED

The following table sets forth information regarding shares of restricted stock held by our Named Executives that vested and became free from forfeiture during the fiscal year ended December 31, 2007:

Name	Stock Awards	
	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
Craig A. Wheeler	—	—
Richard P. Shea	—	—
Ganesh Venkataraman	—	—
Steven B. Brugger	—	—
John E. Bishop	3,750	28,275 (1)

(1) Value realized upon vesting is based on the closing sale price of our common stock on the applicable vesting date.

Employment, Severance and Change of Control Arrangements

Craig A. Wheeler Employment Agreement

On August 22, 2006, we entered into an employment agreement with Craig A. Wheeler, pursuant to which Mr. Wheeler serves as our President, CEO and as a Class II director. Pursuant to his employment agreement, Mr. Wheeler initially received an annual base salary of \$500,000, subject to annual increases by the board of directors. Mr. Wheeler's annual base salary for 2007 was \$500,000 and was increased to \$515,000 for 2008. Beginning with Fiscal 2007, Mr. Wheeler is eligible to receive bonuses of up to 150% of his base salary for the applicable fiscal year, with an annual bonus target of 60% of the then-applicable base salary. The compensation committee approved a \$273,000 bonus paid to Mr. Wheeler in 2008 based on Company achievements in Fiscal 2007. Mr. Wheeler is also entitled to specified benefits, including: (i) participation in our sponsored benefit programs; (ii) reimbursement for life insurance premium expenses and related tax gross-up payments; and (iii) reimbursement of tax and financial advisor fees incurred by Mr. Wheeler during the period of his employment.

Equity Awards

Mr. Wheeler's employment agreement provides for the grant or issuance, as applicable, of the following stock-based awards:

1. On August 22, 2006, we granted Mr. Wheeler options to purchase an aggregate of 375,000 shares of common stock at an exercise price of \$16.18 per share, which is referred to as the Initial Option Grant. The Initial Option Grant will vest as to 25% of the shares subject to such option on August 22, 2007 and as to 6.25% of the shares subject to such option at the end of each three-month period thereafter.

2. On August 22, 2006, we issued 100,000 shares of restricted common stock to Mr. Wheeler, which is referred to as the Time-Based Grant. The shares of common stock subject to the Time-Based Grant vest and become free from forfeiture on the fourth anniversary of the date of issuance.

3. On January 17, 2007, we issued to Mr. Wheeler 175,000 shares of restricted common stock, which is referred to as the Performance Grant. Subject to the acceleration provisions set forth in

Mr. Wheeler's employment agreement, the shares of common stock subject to the Performance Grant shall vest and become free from forfeiture upon fulfillment of any of the following conditions:

- (i) on the date that our board of directors certifies we (or any of our partners or collaborators) have commercially launched M-Enoxaparin in the United States, provided that (A) such commercial launch shall have occurred prior to January 17, 2011 and (B) Mr. Wheeler is then employed by us;
- (ii) on January 17, 2011, provided that Mr. Wheeler is then employed by us, our board of directors certifies that any one of the three following events shall have occurred: (A) we have consummated a public offering of shares of our common stock pursuant to a registration statement filed with the Securities and Exchange Commission with gross proceeds to us totaling at least \$40.0 million; (B) we have executed a collaboration agreement with an unaffiliated third party partner (and have fulfilled the conditions to closing set forth in such agreement or related agreement(s)), the terms of which shall include an irrevocable commitment from such third party to provide cash payments of at least \$40.0 million to us within four years of the date of execution of such collaboration agreement, provided that such unaffiliated third party partner shall not include any party (x) with which we have an executed agreement or (y) with which we have actively negotiated a collaboration, in each case prior to the date of the employment agreement; or (C) the closing price of our common stock on the NASDAQ Global Market has equaled or exceeded \$25.00 over a period of 20 consecutive trading days (such price to be adjusted in the event of a stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event).

Notwithstanding the foregoing, if at any time during the four year-period ending on January 17, 2011 our board of directors elects to abandon the M-Enoxaparin program and no longer pursue the commercialization of M-Enoxaparin either for strategic reasons or as a result of adverse events in the regulatory process, the shares of common stock subject to the Performance Grant shall vest and become free from the forfeiture on the date that our board of directors certifies that any one of the three events set forth in item (ii) above shall have occurred; or

- (iii) in the event the shares of common stock subject to the Performance Grant do not vest before January 17, 2011 in accordance with the conditions set forth in items (i) or (ii) above, provided that Mr. Wheeler is then employed by us, the date our board of directors certifies that (A) we have commercially launched M-Enoxaparin in the United States or (B) any one of the three events set forth in item (ii)(A)-(C) above shall have occurred, in each case on or after January 17, 2011 but prior to January 17, 2013.

4. In addition to the Initial Option Grant, the Time-Based Grant and the Performance Grant, on February 22, 2008, we granted Mr. Wheeler (i) 75,000 shares of restricted common stock subject to vesting over four years, which is referred to as the First Target Grant and (ii) an option to purchase 100,000 shares of common stock subject to vesting over four years, with an exercise price of \$7.41 per share, which is referred to as the Second Target Grant.

Termination of Employment

In the event that Mr. Wheeler's employment is terminated by us without cause, by reason of his death or disability or by him for good reason, other than in connection with a change in control (as those terms are defined in his employment agreement), (i) the vesting schedules applicable to the Initial Option Grant, the Time-Based Grant and the Performance Grant will be fully accelerated and the shares thereunder fully vested (except in the case of a termination without cause, in which case a total of 75,000 of the shares subject to the Performance Grant shall immediately vest), (ii) the vesting

schedules applicable to the First Target Grant and Second Target Grant will accelerate by an additional 12 months and (iii) the vesting schedule applicable to all future stock-based awards held by Mr. Wheeler at the time of such termination will accelerate by 25%.

In the event Mr. Wheeler's employment is terminated by us without cause within 24 months following a change of control (as such term is defined in the employment agreement) or is terminated by Mr. Wheeler for good reason within 24 months following a change of control, the unvested portions of the Initial Option Grant, the Time-Based Grant, the Performance Grant, the First Target Grant, the Second Target Grant and all future stock-based awards shall fully and immediately vest.

Under his employment agreement, Mr. Wheeler or Momenta may terminate his employment at any time, subject to the following severance benefits. In the event Mr. Wheeler's employment is terminated without cause by us, as the result of death or disability or Mr. Wheeler terminates his employment for good reason, other than in connection with a change in control, Mr. Wheeler will receive a lump sum payment equal to (i) 12 months of the highest base salary in effect during the 12 months prior to the date of termination and (ii) the greater of 60% of Mr. Wheeler's base salary or his last paid bonus. Additionally, Mr. Wheeler and his dependents will receive comparable benefits for a maximum of 12 months following such termination subject to his reemployment with comparable benefits.

If Mr. Wheeler terminates his employment for good reason within 24 months following a change of control of Momenta, or if we terminate Mr. Wheeler's employment without cause within 24 months following a change of control, Mr. Wheeler will receive a lump-sum cash payment equal to (i) 24 months of Mr. Wheeler's highest base-salary in effect during the 12 months prior to termination of his employment, (ii) an amount equal to the greater of 60% of Mr. Wheeler's last two years of base salary and an amount equal to two times the last bonus paid to Mr. Wheeler and (iii) if the aggregate purchase price paid in a change of control transaction equals or exceeds \$1.1 billion, an additional amount equal to 12 months of base salary in effect at the time of Mr. Wheeler's termination and the greater of 60% of one year of base salary and the last bonus paid to Mr. Wheeler. Additionally, Mr. Wheeler and his dependents will receive comparable benefits for a maximum of 36 months following such termination subject to his reemployment with comparable benefits.

Other Provisions

Our employment agreement with Mr. Wheeler also contains non-disclosure, non-competition and assignment of intellectual property terms. These terms provide for the protection of our confidential information, the transfer of ownership rights to intellectual property developed by Mr. Wheeler and a 12-month non-compete provision.

Executive Employment Agreements with Richard P. Shea, Ganesh Venkataraman, Steven B. Brugger and John E. Bishop

On April 28, 2008, we entered into executive employment agreements, or the Executive Employment Agreements, with the following Named Executives: Richard P. Shea, Ganesh Venkataraman, Steven B. Brugger and John E. Bishop.

Salary, Bonus and Benefits

Pursuant to the Executive Employment Agreements, Messrs. Shea, Brugger, Bishop and Venkataraman will receive annual base salaries of \$280,800, \$353,280, \$283,379 and \$302,565, respectively, subject to adjustment thereafter, as determined by our board of directors or a committee or designee thereof. If our board of directors approves an annual bonus for calendar year 2008 or any calendar year thereafter Messrs. Shea, Brugger, Bishop and Venkataraman will be eligible for a discretionary bonus award. The annual target for each executive's bonus will be 35%, 45%, 35% and

35% of the annualized base salary for Messrs. Shea, Brugger, Bishop and Venkataraman, respectively. We will determine, in our sole discretion, whether (and in what amount) a bonus award is payable to each executive. In determining whether a bonus award in any given year shall be granted, we will review whether we have achieved our annually approved corporate goals as well as whether the executive has achieved his personal objectives as established by us. In order to be eligible for any bonus hereunder, the executive must be an active employee of Momenta on the date such bonus is distributed.

Each executive shall be entitled to participate in all benefit plans and programs that we establish and make available to our employees to the extent that the executive is eligible under (and subject to the provisions of) the plan documents governing those programs.

Payments Upon Resignation by the Executive Without Good Reason or Termination by Us for Cause

If the executive voluntarily resigns his employment other than for good reason (as defined in each Executive Employment Agreement), or if we terminates the executive for cause (as defined in each Executive Employment Agreement), we shall pay the executive all accrued and unpaid base salary through the executive's date of termination and any vacation that is accrued but unused as of such date. The executive shall not be eligible for any severance or separation payments or any continuation of benefits (other than those provided for COBRA), or any other compensation pursuant to the Executive Employment Agreement or otherwise. The executive also shall have such rights, if any, with respect to outstanding stock options and restricted stock grants as may be provided under each applicable agreement.

Payments Upon Termination by Reason of Death or Disability, Termination Without Cause or Resignation for Good Reason

If the executive's employment with us is terminated by reason of the executive's death or disability (as defined in each Executive Employment Agreement), by us without cause, or by the executive's voluntary resignation for good reason, other than in connection with a change in control (as defined in each Executive Employment Agreement), then the executive shall be paid all accrued and unpaid base salary and any accrued but unused vacation through the date of termination. In addition, the executive shall be eligible to receive the following separation benefits:

- an amount equal to the sum of (1) 12 months of the executive's base salary as of the date of termination and (2) the greater of (i) the annual discretionary target bonus established by our board of directors (or any other person or persons having authority with respect thereto) for the executive for the fiscal year in which the date of termination occurs or (ii) the annual bonus paid to the executive for the most recently completed fiscal year;
- insurance, medical, dental, health and accident and disability benefits as in effect immediately prior to the termination date for a period of 12 months; and
- continued vesting of any unvested stock options and any future stock option grants awarded to the executive after the date of the Executive Employment Agreement for a period of 12 months from the date of termination and the right to exercise any outstanding stock options shall terminate on the earlier of three months after such 12-month period and the original expiration date of the applicable outstanding stock option. The executive shall also be entitled to immediate vesting, on the date of termination, of any restricted stock awards with underlying shares that vest solely through the passage of time (i.e., service-based vesting) and not upon the achievement of specified conditions or milestones (i.e., performance-based vesting), including any future restricted stock awards granted to the executive after the date of the Executive Employment Agreement that contain service-based vesting provisions, in each case that would have vested during the period of 12 months from the date of termination.

Payments Upon Termination in Connection with a Change of Control

If the executive's employment with the Company is terminated without cause or if the executive terminates his employment with good reason within one year following a change in control (as defined in each Executive Employment Agreement), the executive shall be entitled to all accrued and unpaid base salary and any accrued but unused vacation through the date of termination. In addition, the executive shall be eligible to receive the following separation benefits:

- an amount equal to the sum of (1) 12 months of the executive's base salary as of the date of termination and (2) the greater of (i) the annual discretionary target bonus established by our board of directors (or any other person or persons having authority with respect thereto) for the executive for the fiscal year in which the date of termination occurs or (ii) the annual bonus paid to the executive for the most recently completed fiscal year;
- insurance, medical, dental, health and accident and disability benefits as in effect immediately prior to the termination date for a period of 12 months; and
- immediate vesting of any unvested stock options, restricted stock awards and any future grants awarded to the executive. All such equity awards (whether stock options or restricted stock grants) will remain exercisable in accordance with the applicable stock option plan or grant agreement.

Non-Competition, Non-Solicitation, Confidential Information and Developments

In connection with the execution of the Executive Employment Agreements, Messrs. Bishop, Brugger and Shea restated and reaffirmed all of their respective obligations pursuant to their respective Employee Non-disclosure, Non-competition and Assignment of Inventions Agreements providing for the protection of our confidential information, the transfer of ownership rights to intellectual property developed by each such executive and a 12-month non-compete provision. Mr. Venkataraman's Executive Employment Agreement contains provisions for the protection of our confidential information, the transfer of ownership rights to intellectual property developed by him and a 12-month non-compete provision.

Potential Termination and Change of Control Payments

Potential Termination and Change of Control Payments for Craig A. Wheeler

The following table describes the potential payments, benefits and acceleration of vesting applicable to stock options and restricted stock awards under our employment agreement with Craig A. Wheeler. The amounts shown below assume that the termination of Mr. Wheeler is effective as of December 31, 2007. Actual amounts payable to Mr. Wheeler upon his termination can only be determined definitively at the time of his actual departure.

Benefit	Voluntary Termination or Termination for Cause (\$)	Termination Without Cause, Termination by Reason of Death or Disability, Resignation for Good Reason (\$)	Termination Without Cause or Resignation for Good Reason Within 24 Months of a Change of Control (\$)
<i>Accrued Obligations</i>			
Vacation	12,500	12,500	12,500
<i>Severance Benefits</i>			
Lump-sum cash payment	—	800,000(2)	1,600,000(3)
Lump-sum payment with respect to business combination	—	—	800,000(4)
Insurance/Healthcare benefits	—	16,743(5)	50,229(6)
<i>Market Value of Stock Vesting on Termination(1)</i>			
	—	1,963,500(7)	1,963,500(7)
<i>Gross-Up Payments</i>	—	—	1,951,220(8)
Total	12,500	2,792,743	6,377,449

- (1) Based on the last sale price of Momenta common stock on December 31, 2007, or \$7.14 per share.
- (2) Represents a lump sum payment equal to 12 months of the highest base salary in effect for Mr. Wheeler during the 12 months prior to his termination, or \$500,000, plus an amount equal to 60% of such base salary, or \$300,000. This amount is to be paid in full six months and one day after the date of Mr. Wheeler's termination.
- (3) Represents a lump sum payment equal to 24 months of the highest base salary in effect for Mr. Wheeler during the 12 months prior to his termination, or \$1,000,000, plus an amount equal to 60% of such base salary, or \$600,000. This amount is to be paid in full six months and one day after the date of Mr. Wheeler's termination.
- (4) Assumes that the change of control involves a business combination with an aggregate purchase price exceeding \$1.1 billion. In such event, Mr. Wheeler is entitled to an additional lump sum payment equal to 12 months of the highest base salary in effect for Mr. Wheeler during the 12 months prior to his termination, or \$500,000, plus an amount equal to 60% of such base salary, or \$300,000.
- (5) Represents benefits payable over 12 months for continuation of coverage under medical and dental plans for Mr. Wheeler and his dependents subject to Mr. Wheeler's reemployment with comparable healthcare benefits. The value is based upon the type of insurance coverage we carried for Mr. Wheeler as of December 31, 2007 and is valued at the premiums in effect on December 31, 2007.
- (6) Assumes that the change of control involves a business combination with an aggregate purchase price exceeding \$1.1 billion, and represents benefits payable over 36 months for continuation of coverage under medical and dental plans for Mr. Wheeler and his dependents subject to Mr. Wheeler's reemployment with comparable healthcare benefits. In the event the aggregate

purchase price is less than \$1.1 billion, Mr. Wheeler would be entitled to 24 months continuation of coverage under medical and dental plans for Mr. Wheeler and his dependents subject to Mr. Wheeler's reemployment with comparable healthcare benefits, with a value equal to \$33,486. This value is based upon the type of insurance coverage we carried for Mr. Wheeler as of December 31, 2007 and is valued at the premiums in effect on December 31, 2007.

- (7) Represents the immediate vesting of 375,000 shares of common stock underlying stock options granted to Mr. Wheeler on August 22, 2006, 100,000 shares of common stock subject to a restricted stock agreement between us and Mr. Wheeler dated August 22, 2006, and 175,000 shares of common stock subject to a restricted stock agreement between us and Mr. Wheeler dated January 17, 2007. However, the exercise price of \$16.18 per share for the 375,000 shares of common stock subject to stock options granted to Mr. Wheeler is above the last sale price on December 31, 2007, and therefore has no market value at that date. If Mr. Wheeler's employment with us is terminated without cause in periods after December 31, 2007, acceleration of vesting to additional equity awards will apply. See the discussion in this proxy statement under the heading "Employment, Severance and Change of Control Arrangements—Craig A. Wheeler Employment Agreement."
- (8) Represents the excise tax payable under section 280G of the United States Internal Revenue Code.

Potential Termination and Change of Control Payments for Messrs. Shea, Venkataraman, Brugger and Bishop

The following table describes the potential payments, benefits and acceleration of vesting applicable to stock options and restricted stock awards under our Executive Employment Agreements with each of Messrs. Shea, Venkataraman, Brugger and Bishop. The amounts shown below assume that the termination of each executive is effective as of December 31, 2007 and that each of the Executive Employment Agreements was effective as of December 31, 2007. Actual amounts payable to each Named Executive listed below upon his termination can only be determined definitively at the time of each Named Executive's actual departure.

Name	Benefit	Voluntary Termination or Termination for Cause (\$)	Termination for Death, Disability, Without Cause or for Good Reason Other than in Connection with Change of Control (\$)	Termination Without Cause or Resignation for Good Reason Within 12 Months of a Change of Control (\$)
Richard P. Shea	<i>Accrued Obligations</i>			
	Vacation	3,894	3,894	3,894
	<i>Severance Benefits</i>		270,000(2)	
	Salary			
	Lump-sum cash payment	—	94,500(3)	364,500(4)
	Insurance/Healthcare benefits	—	13,276	13,276(5)
	<i>Market Value of Stock Vesting on Termination(1)</i>	—	34,197(6)	108,014(7)
	Total	3,894	415,867	489,684
Ganesh Venkataraman	<i>Accrued Obligations</i>			
	Vacation	15,665	15,665	15,665
	<i>Severance Benefits</i>			
	Salary		290,928(2)	
	Lump-sum cash payment	—	107,184(3)	398,112(4)
	Insurance/Healthcare benefits	—	1,348	1,348(5)
	<i>Market Value of Stock Vesting on Termination(1)</i>	—	14,002(6)	1,442,406(7)
	Total	15,665	429,127	1,857,531
Steven B. Brugger	<i>Accrued Obligations</i>			
	Vacation	20,014	20,014	20,014
	<i>Severance Benefits</i>			
	Salary		345,000(2)	
	Lump-sum cash payment	—	155,250(3)	500,250(4)
	Insurance/Healthcare benefits	—	16,743	16,743(5)
	<i>Market Value of Stock Vesting on termination(1)</i>	—	14,824(6)	1,479,530(7)
	Total	20,014	551,831	2,016,537
John E. Bishop	<i>Accrued Obligations</i>	14,170	14,170	14,170
	Vacation			
	<i>Severance Benefits</i>			
	Salary		270,400(2)	
	Lump-sum cash payment	—	94,640(3)	365,040(4)
	Insurance/Healthcare benefits	—	16,743	16,743(5)
	<i>Market Value of Stock Vesting on Termination(1)</i>	—	53,550(6)	187,425(7)
	Total	14,170	449,503	583,378

(1) Based on the last sale price of Momenta common stock on December 31, 2007, or \$7.14 per share.

(2) Represents an amount equal to the Named Executive's base salary payable over the applicable severance period.

- (3) Represents an amount equal to the greater of (i) the annual bonus paid to the Named Executive for the most recently completed fiscal year or (ii) the 2007 target bonus potential. Such amounts are to be paid within 30 days after the Named Executive's termination date. For more information relating to compensation earned by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Summary Compensation Table."
- (4) Represents an amount equal to the Named Executive's base salary plus the greater of (i) the annual bonus paid to the Named Executive for the most recently completed fiscal year or (ii) the 2007 target bonus potential. Such amounts are to be paid within 30 days after the Named Executive's termination date. For more information relating to compensation earned by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Summary Compensation Table."
- (5) Represents amounts payable over 12 months for continuation of coverage for insurance, medical, dental, health and accident and disability benefits for each Named Executive and his family members subject to the Named Executive's reemployment with comparable healthcare benefits. The value is based upon the type of insurance coverage we carried for each Named Executive as of December 31, 2007 and is valued at the premiums in effect on December 31, 2007.
- (6) Represents continued vesting for an additional 12-month period of all unvested stock options and other stock awards held by the Named Executives as of December 31, 2007. For more information concerning option and restricted common stock awards held by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Outstanding Equity Awards at Fiscal-Year End."
- (7) Represents immediate vesting of all unvested stock options and other stock awards held by the Named Executives as of December 31, 2007. For more information concerning option and restricted common stock awards held by our Named Executives, see the section of this proxy statement entitled "Executive Compensation—Outstanding Equity Awards at Fiscal-Year End."

Compensation of Directors

2007 Director Compensation

In March 2007, our board of directors approved the following compensation structure for our non-employee directors during the year ended December 31, 2007:

Grant of Stock Options Upon Appointment. Each non-employee director automatically received an option to purchase up to 30,000 shares of our common stock upon appointment to the board of directors. These options vest quarterly over the three years following the grant date, subject to such director's continued service on the board of directors.

Grant of Additional Stock Options. Non-employee directors who served on our board of directors during Fiscal 2006 and who continued to serve on the board of directors during Fiscal 2007 were granted an option to purchase up to 19,200 shares of our common stock at the 2007 annual meeting of stockholders. These options vest quarterly over the year following the grant date, subject to the non-employee director's continued service on the board of directors. Currently, each such non-employee director stock option will terminate on the earlier of ten years from the date of grant or two years after the recipient ceases to serve as a director.

Payment of Retainer Fee; Reimbursement of Travel and Other Expenses. In addition to an option grant, each non-employee director received an annual retainer of \$25,000 for his or her service on our board of directors during Fiscal 2007. Additional amounts were paid as follows:

Position	Additional Fees
Non-Employee Chairman of the Board	\$25,000
Audit Committee Chair	\$10,000
Audit Committee Members (other than the Chair)	\$ 7,500
Compensation Committee, Nominating and Corporate Governance Committee Chairs and Members (no additional fees shall be paid to members serving on both the Compensation and the Nominating and Corporate Governance Committees)	\$ 5,000
*Science Committee Chair	\$10,000
*Science Committee Members (other than the Chair)	\$ 7,500
*Additional Payments to Science Committee Chair and Members	\$ 3,000 for each all day session attended (up to a maximum of \$15,000 per year) that is in addition to the standard quarterly meetings of the Science Committee

* No member of the Science Committee was paid an annual retainer or any other fees for participation on the Science Committee so long as such individual had a consulting agreement with us. During portions of Fiscal 2007, this applied to Drs. Langer, Sasisekharan and Shapiro.

All retainer amounts were paid quarterly during Fiscal 2007. Non-employee directors also received reimbursement for reasonable travel and other expenses in connection with attending meetings of our board of directors during Fiscal 2007.

Compensation of Employee Directors. No director who is also an employee receives separate compensation for services rendered as a director. Mr. Wheeler is currently the only director who is also an employee of ours. Mr. Wheeler's compensation as President and CEO is set forth under the headings "Executive Compensation" and "Employment, Severance and Change of Control Agreements—Craig A. Wheeler Agreement."

Other Arrangements with Directors. Arrangements with Alan L. Crane, Robert S. Langer, Jr., Ram Sasisekharan, Peter Barton Hutt and Bennett Shapiro, pursuant to which each director receives or received compensation under consulting agreements with us, are included in the table entitled "Director Compensation" above and are discussed under the heading "Certain Relationships and Related Transactions" below.

The following table sets forth the compensation paid to our non-employee directors for the year ended December 31, 2007:

FISCAL 2007 DIRECTOR COMPENSATION

Name	Fees Earned or Paid in Cash(1) (\$)	Stock Awards(2) (\$)	Option Awards(3)(4)(5) (\$)	All Other Compensation (\$)	Total (\$)
Peter Barrett	55,000	—	153,222	—	208,222
John K. Clarke	32,500	—	153,222	—	185,722
Alan L. Crane	25,000	—	308,241	86,000(6)	419,241
Marsh H. Fanucci	35,000	—	231,530	—	266,530
Paul D. Goldenheim(7)	22,999	—	44,565(8)	—	67,564
Peter Barton Hutt	30,000	—	164,661(9)	—	194,661
Robert S. Langer, Jr	30,706	69,697	153,222	55,978(10)	309,603
Stephen T. Reeders	32,500	—	153,222	—	185,722
Ram Sasisekharan	28,750	104,545	153,222	93,750(11)	380,267
Bennett M. Shapiro	46,000	—	163,466(12)	—	209,466
Elizabeth Stoner	4,589	—	2,313	—	6,902

- (1) The fees earned by the non-employee directors in Fiscal 2007 consist of the following: (i) an annual retainer; (ii) a fee to the non-employee chairman of the board, Mr. Barrett; (iii) an annual fee for chairing and being a member of each of the audit, compensation, nominating and corporate governance and science committees; and (iv) certain per meeting fees for the science committee. Dr. Stoner was appointed as a Class III director on October 25, 2007. Therefore, the amount paid to Dr. Stoner represents fees earned from October 25, 2007 to December 31, 2007.
- (2) Valuation based on the dollar amount recognized for financial statement reporting purposes pursuant to SFAS 123(R) with respect to Fiscal 2007 relating to shares of common stock subject to restricted stock agreements awarded to each of Drs. Langer and Sasisekharan. The assumptions used by us with respect to the valuation of restricted stock grants are set forth in Note 4 to our financial statements.
- (3) Valuation based on the dollar amount recognized for financial statement reporting purposes pursuant to SFAS 123(R) with respect to Fiscal 2007, except that: (i) such amounts do not reflect an estimate of forfeitures related to service-based vesting conditions; (ii) with respect to each of the above-named non-employee directors, except Paul Goldenheim and Elizabeth Stoner, the amounts reported in these columns reflect additional expense resulting from the requirements of the Securities and Exchange Commission to report option grants made prior to 2006 using the modified prospective transition method pursuant to SFAS 123(R); and (iii) Dr. Shapiro's and Mr. Hutt's stock options granted in connection with consulting agreements, which are valued in accordance with EITF Issue No. 96-18. The assumptions used by us with respect to the valuation of option grants are set forth in Note 4 to our financial statements.

During Fiscal 2007, compensation expense was recognized in the 2007 financial statements for the following awards of restricted stock to our non-employee directors:

Name	Grant Date	Number of Shares Subject to Award(#)	Number of Shares Vested in 2007(#)	2007 Expense Recognized Under SFAS 123(R)(\$)
Robert S. Langer, Jr.	September 13, 2007	16,000	—	69,697
Ram Sasisekharan	September 13, 2007	24,000	—	104,545

In addition, during Fiscal 2007, compensation expense was recognized in respect of the following grants of stock options to our non-employee directors:

Name	Grant Date	Number of Shares Subject to Options(#)	Number of Shares Vested in 2007(#)	2007 Expense Recognized Under SFAS 123(R)(%)
Peter Barrett	6/15/2006	19,200	9,600	69,740
	6/13/2007	19,200	9,600	83,482
John K. Clarke	6/15/2006	19,200	9,600	69,740
	6/13/2007	19,200	9,600	83,482
Alan L. Crane	12/30/2005	28,600	7,181	224,759
	6/13/2007	19,200	9,600	83,482
Marsha H. Fanucci	3/15/2005	38,400	12,800	78,308
	6/15/2006	19,200	9,600	69,740
	6/13/2007	19,200	9,600	83,482
Paul D. Goldenheim	5/26/2006	30,000	5,000	44,565
Peter Barton Hutt	6/15/2006	19,200	9,600	69,740
	9/25/2006	6,500	4,877	11,439
	6/13/2007	19,200	9,600	83,482
Robert S. Langer, Jr.	6/15/2006	19,200	9,600	69,740
	6/13/2007	19,200	9,600	83,482
Stephen T. Reeders	6/15/2006	19,200	9,600	69,740
	6/13/2007	19,200	9,600	83,482
Ram Sasisekharan	6/15/2006	19,200	9,600	69,740
	6/13/2007	19,200	9,600	83,482
Bennett M. Shapiro	2/05/2003	81,200	20,300	2,905
	6/15/2006	19,200	9,600	69,740
	9/25/2006	6,500	1,626	7,339
	6/13/2007	19,200	9,600	83,482
Elizabeth Stoner	12/14/2007	30,000	—	2,313

- (4) On June 13, 2007, the day of our 2007 annual meeting of stockholders, we granted each of our non-employee directors (with the exception of Dr. Goldenheim, who did not stand for re-election, and Dr. Stoner, who joined the board of directors in October 2007) an option to purchase 19,200 shares of our common stock, each with an exercise price equal to the closing price of our common stock on the NASDAQ Global Market on the day prior to the date of grant, or \$11.91 per share. All such options shall become exercisable in four equal quarterly installments commencing the date of grant, provided that the optionee then remains a director.

- (5) The following table shows the aggregate number of stock option grants outstanding for each non-employee director as of December 31, 2007 as well as the grant date fair value of stock option grants made during 2007:

Name	Aggregate Number of Shares Subject to Outstanding Stock Options(#)	Grant Date Fair Value of Stock Option Grants Made During 2007(\$)
Peter Barrett	76,800	152,012
John K. Clarke	76,800	152,012
Alan L. Crane	54,400	152,012
Marsh H. Fanucci	76,800	152,012
Paul D. Goldenheim	—	—
Peter Barton Hutt	156,300	152,012
Robert S. Langer, Jr.	76,800	152,012
Stephen T. Reeders	76,800	152,012
Ram Sasisekharan	76,800	152,012
Bennett M. Shapiro	105,250	152,012
Elizabeth Stoner	30,000	149,103

- (6) We entered into a letter agreement with Mr. Crane dated October 17, 2006, pursuant to which Mr. Crane provided consulting services to us. As compensation under the agreement, Mr. Crane received an aggregate of \$86,000 during Fiscal 2007. The consulting agreement was terminated on September 18, 2007.
- (7) Dr. Goldenheim did not stand for re-election at our 2007 annual meeting of stockholders.
- (8) The amount excludes the forfeiture of 20,000 shares of common stock underlying an option granted to Dr. Goldenheim on May 26, 2006. Such forfeiture resulted in the full reversal of stock-based compensation expense that would have been recorded in the amount of \$178,260.
- (9) We entered into a consulting agreement with Mr. Hutt dated September 18, 2002, as amended September 29, 2003, October 4, 2004, September 22, 2005 and September 18, 2006, pursuant to which Mr. Hutt provided consulting services to us. The amount shown includes \$11,439 of stock compensation expense related to stock options granted pursuant to the consulting agreement. The consulting agreement expired pursuant to its terms on September 18, 2007.
- (10) We entered into a consulting agreement with Robert S. Langer, Jr., dated July 23, 2001, as amended July 2, 2004, August 8, 2005 and July 19, 2006, pursuant to which Dr. Langer provided consulting services to us. As compensation under the amended agreement, Dr. Langer received an aggregate of \$55,978 during Fiscal 2007. The consulting agreement expired pursuant to its terms on July 22, 2007.
- (11) We entered into a consulting agreement with Ram Sasisekharan dated August 16, 2001, as amended August 1, 2003, July 12, 2004, November 8, 2005 and September 7, 2006, pursuant to which Dr. Sasisekharan provided consulting services to us. As compensation under the amended consulting agreement, Dr. Sasisekharan received an aggregate of \$93,750 during Fiscal 2007. The consulting agreement expired pursuant to its terms on August 15, 2007.
- (12) We entered into a consulting agreement with Dr. Shapiro dated October 4, 2004, as amended September 22, 2005, and September 25, 2006, pursuant to which Dr. Shapiro provided consulting services to us. The amount shown includes \$7,339 of stock compensation expense related to stock options granted pursuant to the consulting agreement. The consulting agreement was terminated by mutual agreement on March 30, 2007. The amount includes the forfeiture of 3,250 shares of common stock underlying an option granted to Dr. Shapiro on September 25, 2006, which resulted in the reversal of stock-based compensation expense in the amount of \$3,194.

2008 Director Compensation

Subject to future review and recommendation by our compensation committee, our board of directors will receive the same compensation for their service during the fiscal year ending December 31, 2008.

Compensation Committee Report

The compensation committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with the Company's management. Based on this review and discussion, the compensation committee recommended to the Company's Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement.

By the Compensation Committee of the Board of Directors of Momenta Pharmaceuticals, Inc.:

Peter Barrett (Chairperson)
Peter Barton Hutt
Bennett M. Shapiro
Elizabeth Stoner

Compensation Committee Interlocks and Insider Participation

The compensation committee currently consists of Peter Barrett, who serves as chairman, Peter Barton Hutt, Bennett M. Shapiro and Elizabeth Stoner.

None of our executive officers serves as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving 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 Momenta.

Peter Barrett, who serves as chairperson of the compensation committee, is a limited partner of Atlas Venture Associates V, L.P. and Atlas Venture Associates VI, L.P., which, with their affiliates, hold certain registration rights with respect to shares of our common stock. The following directors, officers and holders of more than five percent of our voting securities and their affiliates have been granted registration rights with respect to shares of our common stock under the terms of an investors' right agreement between us and these holders:

Name of Holder	Number of Registrable Shares (#)
Alan L. Crane and affiliates	586,342
Ganesh Venkataraman	252,812
Peter Barton Hutt	37,498
Robert S. Langer, Jr. and affiliates	954,022
Ram Sasisekharan	406,344
Novartis Pharma AG	4,708,679
Polaris Venture Partners III, L.P. and related entities	1,815,930
Atlas Venture entities (Peter Barrett)	2,459,100
MVM International Life Sciences Fund No. 1 L.P. and related entities and individuals (Stephen T. Reeders)	475,277
Total	11,696,004

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth information regarding beneficial ownership of our common stock as of April 1, 2008 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 as of such date based on currently available Schedules 13D and 13G filed with the Securities and Exchange Commission;
- each of our directors (which includes all nominees);
- our chief executive officer, our principal financial officer and our three other most highly compensated executive officers who were serving as executive officers as of December 31, 2007, who we refer to in this proxy statement as our Named Executives; and
- all of our directors and executive officers 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. Shares of our common stock issuable under stock options exercisable on or before May 31, 2008 are deemed beneficially owned for computing the percentage ownership of the person holding the options, but are not deemed outstanding for computing the percentage ownership of any other person. 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. Unless otherwise indicated, the address of all directors and executive officers is c/o Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, Massachusetts 02142. The inclusion of any shares deemed beneficially owned in this table does not constitute an admission of beneficial ownership of those shares.

There were, as of April 1, 2008, approximately 62 holders of record and 3,973 beneficial holders of our common stock.

Name and Address of Beneficial Owner	Total Number of Shares Beneficially Owned	Percentage of Common Stock Beneficially Owned(1)
<i>Holders of more than 5% of our Common Stock</i>		
Novartis AG Lichstrasse 35 CH 4058 Basel, Switzerland	4,708,679 (2)	12.8%
T. Rowe Price Associates, Inc. 100 E. Pratt Street, Baltimore, MD 21202	3,150,847 (3)	8.6%
Palo Alto Investors LLC 470 University Avenue Palo Alto, CA 94301	3,102,460 (4)	8.4%
Ziff Asset Management, L.P. and related entities and individual 283 Greenwich Avenue Greenwich, CT 06830	3,008,131 (5)	8.2%
Atlas Venture entities 890 Winter Street, Suite 320 Waltham, MA 02415	2,459,100 (6)	6.7%
Visium Asset Management, LP 950 Third Avenue New York, NY 10022	2,358,632 (7)	6.4%
Federated Investors, Inc. 5899 Corporate Drive Pittsburgh, PA 15237	2,041,300 (8)	5.6%
<i>Directors (which includes all nominees) and Named Executives</i>		
Craig A. Wheeler	520,310 (9)	1.4%
Alan L. Crane	634,425 (10)	1.7%
Robert S. Langer, Jr.	1,042,022 (11)	2.8%
Peter Barrett	2,531,479 (6)(12)	6.9%
John K. Clarke	149,123 (13)	*
Ram Sasisekharan	478,344 (14)	1.3%
Peter Barton Hutt	218,998 (15)	*
Stephen T. Reeders	555,157 (16)	1.5%
Bennett M. Shapiro	105,450 (17)	*
Elizabeth Stoner	2,500 (18)	*
Marsha H. Fanucci	72,000 (19)	*
Steven B. Brugger	352,298 (20)	1.0%
Richard P. Shea	174,790 (21)	*
John E. Bishop	127,767 (22)	*
Ganesh Venkataraman	555,389 (23)	1.5%
<i>All Directors and Named Executives as a group (15 persons)</i>	7,520,052 (24)	19.7%

* Less than 1% of our outstanding common stock.

- (1) Applicable percentage of ownership for each holder is based on 36,772,829 shares of common stock outstanding on April 1, 2008, plus any common stock equivalents and presently exercisable stock options or warrants held by each such holder, and options or warrants held by each such holder which will become exercisable as of May 31, 2008.
- (2) Information is based on a Schedule 13D filed on August 4, 2006 by Novartis AG ("Novartis") and Novartis Pharma AG ("Novartis Pharma"), as amended by Amendment No. 1 to Schedule 13D filed on September 6, 2006 by Novartis and Novartis Pharma. Novartis Pharma is the record holder of 4,708,679 shares of common stock. Novartis Pharma is a wholly-owned subsidiary of Novartis, and, as a result, Novartis is the beneficial owner of the 4,708,679 shares of common stock held of record by Novartis Pharma. Novartis Pharma and Novartis have shared power to vote and shared power to dispose of such shares.
- (3) Information is based on a Schedule 13G/A filed by T. Rowe Price Associates, Inc. on February 13, 2008, and is as of December 31, 2007. These securities are owned by various individual and institutional investors for which T. Rowe Price Associates, Inc. serves as investment advisor with power to direct investments and/or sole power to vote the securities. For purposes of the reporting requirements of the Securities Exchange Act of 1934, T. Rowe Price Associates, Inc. is deemed to be a beneficial owner of such securities; however, T. Rowe Price Associates, Inc. expressly disclaims that it is, in fact, the beneficial owner of such securities. Of the 3,150,847 shares of our common stock deemed beneficially owned, T. Rowe Price Associates, Inc. reports sole voting power as to 899,999 shares and sole dispositive power as to 3,150,847 shares.
- (4) Information is based on a Schedule 13G/A filed by Palo Alto Investors, LLC ("PAI"), Palo Alto Investors and William Leland Edwards on February 13, 2008 and is as of December 31, 2007. PAI is a registered investment adviser and is the general partner and investment adviser of investment limited partnerships and the investment adviser to other investment funds. Palo Alto Investors is the manager of PAI. Mr. Edwards is the controlling shareholder and President of Palo Alto Investors. PAI's clients 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 common stock. No client separately holds more than five percent of the outstanding shares. Each of PAI, Palo Alto Investors and Mr. Edwards disclaims beneficial ownership of such shares except to the extent of its or his pecuniary interest therein.
- (5) Information is based on a Schedule 13G/A filed by Ziff Asset Management, L.P., and its affiliates, on February 13, 2008, and is as of December 31, 2007. Ziff Asset Management, L.P. is the record owner of 3,008,131 shares of our common stock. Each of PBK Holdings, Inc., Philip B. Korsant and ZBI Equities, L.L.C. may be deemed to beneficially own these shares as a result of the direct or indirect power to vote or dispose of such shares.
- (6) Information is based on a Schedule 13G/A filed by Atlas Venture and its affiliates on February 1, 2008, and is as of December 31, 2007. Consists of (a) 972,583 shares of common stock held by Atlas Venture Fund V, L.P., (b) 12,919 shares of common stock held by Atlas Venture Entrepreneurs' Fund V, L.P., (c) 1,404,928 shares of common stock held by Atlas Venture Fund VI, L.P., (d) 42,945 shares of common stock held by Atlas Venture Entrepreneurs' Fund VI, L.P. and (e) 25,725 shares of common stock held by Atlas Venture Fund VI GmbH & Co. KG. Atlas Venture Associates V, L.P. is the general partner of Atlas Venture Fund V, L.P. and Atlas Venture Entrepreneurs' Fund V, L.P. Atlas Venture Associates VI, L.P. is the general partner of Atlas Venture Fund VI, L.P. and Atlas Venture Entrepreneurs' Fund VI, L.P., and it is the managing limited partner of Atlas Venture Fund VI GmbH & Co. KG. Atlas Venture Associates V, Inc. is the general partner of Atlas Venture Associates V, L.P. Atlas Venture Associates VI, Inc. is the general partner of Atlas Venture Associates VI, L.P. Peter Barrett, Ph.D., a director of Momenta Pharmaceuticals, Inc., is a partner of Atlas Venture. Dr. Barrett disclaims beneficial ownership of the shares held by the Atlas Venture entities except to the extent of his proportionate pecuniary interest therein.

- (7) Information is based on a Schedule 13G filed by Visium Asset Management, LP on March 13, 2008 and is as of March 5, 2008. Visium Asset Management, LP, a Delaware limited partnership ("VAM"), is an investment advisor to pooled investment vehicles. JG Asset, LLC, a Delaware limited liability company ("JG Asset"), is the general partner of VAM. Jacob Gottlieb, a natural person, is the managing member of JG Asset. By virtue of its position as general partner to VAM, JG Asset may be deemed to beneficially own the 2,358,632 shares beneficially owned by VAM. By virtue of his position as the managing member of JG Asset, Mr. Gottlieb may be deemed to beneficially own the 2,358,632 shares beneficially owned by JG Asset. VAM, JG and Mr. Gottlieb disclaim beneficial ownership as to the shares, except to the extent of his or its pecuniary interests therein.
- (8) Information is based on a Schedule 13G filed by Federated Investors, Inc. on February 13, 2008 and is as of December 31, 2007. The number of shares indicated represent shares beneficially owned by registered investment companies and separate accounts advised by subsidiaries of Federated Investors, Inc. that have been delegated the power to direct investment and power to vote the securities by the registered investment companies' board of trustees or directors and by the separate accounts' principals. All of the voting securities of Federated Investors, Inc. are held in the Voting Shares Irrevocable Trust ("Trust"), the trustees of which are John F. Donahue, Rhodora J. Donahue, and J. Christopher Donahue ("Trustees"). In accordance with Rule 13d-4 under the Exchange Act, the Trust, Trustees and parent holding company declare that its filing of a Schedule 13G should not be construed as an admission that any of the investment advisers, parent holding company, Trust, and Trustees are beneficial owners (for the purposes of Section 13(d) and/or 13(g) of the Exchange Act) of any securities, and such advisers, parent holding company, Trust, and Trustees expressly disclaim that they are the beneficial owners of such securities.
- (9) Consists of (a) 350,000 shares of restricted common stock, of which all shares remain subject to a repurchase right by us pursuant to restricted stock agreements between us and Mr. Wheeler and (b) 170,310 shares of common stock underlying options exercisable on or before May 31, 2008.
- (10) Consists of (a) 586,342 shares of common stock and (b) 48,083 shares of common stock underlying options exercisable on or before May 31, 2008.
- (11) Consists of (a) 954,022 shares of common stock and (b) 16,000 shares of restricted common stock, of which all shares remain subject to a repurchase right by us pursuant to restricted stock agreements between us and Mr. Langer and (c) 72,000 shares of common stock underlying options exercisable on or before May 31, 2008.
- (12) Includes (a) 379 shares of common stock and (b) 72,000 shares of common stock underlying options exercisable on or before May 31, 2008. The proceeds of any sale of shares of common stock issued to Dr. Barrett upon his exercise of the foregoing options will be transferred to Atlas Venture Advisors, Inc. and Dr. Barrett disclaims beneficial ownership of such shares.
- (13) Consists of (a) 77,123 shares of common stock owned directly by Mr. Clarke, and (b) 72,000 shares of common stock underlying options held by Mr. Clarke exercisable on or before May 31, 2008.
- (14) Consists of (a) 406,344 shares of common stock and (b) 72,000 shares of common stock underlying options exercisable on or before May 31, 2008.
- (15) Consists of (a) 67,498 shares of common stock and (b) 151,500 shares of common stock underlying options exercisable on or before May 31, 2008.
- (16) Includes (a) 5,429 shares of common stock held by Mr. Reeders, (b) 72,000 shares of common stock underlying options exercisable on or before May 31, 2008, (c) 469,848 shares of common stock held by MVM International Life Sciences Fund No. 1 L.P. and (d) 7,880 shares of common stock held by MVM Life Science Partners LLP. Stephen Reeders, Paul Triniman and David Brister

are the investment directors of MVM Limited, which individuals exercise discretionary investment power over securities held by MVM International Life Sciences Fund No. 1 L.P. and MVM Life Science Partners LLP. Stephen Reeders, Paul Triniman, David Brister, Martin Murphy, Richard Lim and Thomas Casdagli are principally responsible for the selection, acquisition and disposition of these securities. Dr. Reeders, a director of Momenta, disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest therein.

- (17) Consists of (a) 5,000 shares of common stock and (b) 100,450 shares of common stock underlying options exercisable on or before May 31, 2008.
- (18) Consists of 2,500 shares of common stock underlying options exercisable on or before May 31, 2008.
- (19) Consists of 72,000 shares of common stock underlying options exercisable on or before June May 31, 2008.
- (20) Consists of (a) 58,386 shares of common stock, (b) 205,000 shares of restricted common stock, of which all shares remain subject to a repurchase right by us pursuant to a restricted stock agreement between us and Mr. Brugger and (c) 88,912 shares of common stock underlying options exercisable on or before May 31, 2008.
- (21) Consists of (a) 1,708 shares of common stock, (b) 25,800 shares of restricted common stock, of which all shares remain subject to a repurchase right by us pursuant to a restricted stock agreement between us and Mr. Shea and (c) 147,282 shares of common stock underlying options exercisable on or before May 31, 2008.
- (22) Consists of (a) 503 shares of common stock, (b) 40,800 shares of restricted common stock, of which all shares remain subject to a repurchase right by us pursuant to a restricted stock agreement between us and Mr. Bishop and (c) 86,464 shares of common stock underlying options exercisable on or before May 31, 2008.
- (23) Consists of (a) 252,812 shares of common stock, (b) 205,000 shares of restricted common stock, of which all shares remain subject to a repurchase right by us pursuant to a restricted stock agreement between us and Mr. Venkataraman and (c) 97,577 shares of common stock underlying options exercisable on or before May 31, 2008.
- (24) See footnotes 6 and 9-23 above.

Equity Compensation Plan Information

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2007:

Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a) (#)	(b) (\$)	(c) (#)
Equity compensation plans approved by security holders(1)(2)	3,194,351	12.02	2,511,578
Equity compensation plans not approved by security holders	—	—	—
Total	3,194,351	12.02	2,511,578

- (1) Includes information regarding the following stockholder-approved equity compensation plans: (i) 2004 Stock Incentive Plan, as amended, (ii) 2004 Employee Stock Purchase Plan and (iii) Amended and Restated 2002 Stock Incentive Plan.
- (2) Upon the approval of our amended 2004 Stock Incentive Plan, we have not granted further stock options under the Amended and Restated 2002 Stock Incentive Plan.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Compensation Paid to Directors and Executive Officers

Please see discussion under the heading "Executive Compensation."

Registration Rights

For information relating to certain registration rights granted by us to certain of our directors, officers and stockholders, please see the discussion under the heading "Compensation Committee Interlocks and Insider Participation."

Consulting Agreements with Non-Employee Directors

Letter Agreement with Alan L. Crane

In connection with the resignation of Alan L. Crane, our former President and CEO, on October 17, 2006, we entered into a letter agreement with Mr. Crane. In recognition of Mr. Crane's contributions to Momenta, the letter agreement provided for a severance payment to Mr. Crane in the amount of \$315,000, payable in one lump-sum in accordance with our normal payroll procedures. In addition, Mr. Crane reaffirmed certain obligations under his employment agreement with us dated March 15, 2002, as amended, including his agreement to protect our confidential information and non-competition and non-solicitation obligations that extend for a period of twelve months following his employment with us. The letter agreement also contemplated a consulting agreement between us and Mr. Crane that was included as an attachment to the letter agreement. The consulting agreement was terminated in September 2007. As compensation under the consulting agreement, we paid Mr. Crane a monthly fee of \$10,000 in arrears. We paid Mr. Crane an aggregate of \$86,000 during Fiscal 2007 under the consulting agreement. The consulting agreement contained non-disclosure and assignment of intellectual property terms in favor of us. In addition, Mr. Crane agreed that during the term of the consulting agreement and for a period of one year thereafter, he would not provide consulting services

to any business or entity with respect to a project or product in the field of interest (as defined in the letter agreement) that competes with a project or product of ours and for which he is or was providing consulting services under the consulting agreement. The consulting agreement also included representations and warranties to us regarding matters that are customarily included in agreements of this nature.

Consulting Agreement with Robert S. Langer, Jr.

In July 2001, we entered into a consulting agreement with Robert S. Langer, Jr., one of our founders and a member of our board of directors, pursuant to which Dr. Langer provided consulting services as reasonably requested by us from time to time. The term of the consulting agreement was initially for two years. Pursuant to an amendment dated July 2, 2004, we and Dr. Langer agreed to extend the term of the consulting agreement through July 22, 2005. Under the terms of the agreement, we provided compensation to Dr. Langer of up to \$25,000, \$50,000 or \$100,000 on an annual basis contingent upon the achievement of certain milestones. We paid Dr. Langer \$75,000 and \$100,000 for consulting services in 2004 and 2005, respectively. In August 2005, we further amended the agreement with Dr. Langer to extend the term of the agreement through and including July 22, 2006. Pursuant to the terms of the amended agreement, Dr. Langer agreed (i) to provide certain technical and strategic consulting services in connection with various programs and (ii) not perform certain competing consulting services without the consent of our CEO through July 22, 2006 and for one year thereafter. The term of the consulting agreement was further extended through July 22, 2007 pursuant to the amendment dated July 19, 2006. As compensation under the amended agreement, Dr. Langer received an aggregate of \$100,000 payable in four equal quarterly installments. The consulting agreement expired pursuant to its terms, effective as of July 22, 2007. We paid Dr. Langer an aggregate of \$55,978 for consulting services in Fiscal 2007.

Consulting Agreement with Ram Sasisekharan

In August 2001, we entered into a consulting agreement with Ram Sasisekharan, one of our founders and a member of our board of directors, pursuant to which Dr. Sasisekharan provided consulting services as mutually determined by us and Dr. Sasisekharan from time to time. The term of the consulting agreement was initially for two years. Pursuant to an amendment dated July 12, 2004, we and Dr. Sasisekharan agreed to extend the term of the consulting agreement through August 15, 2005, and we provided compensation to Dr. Sasisekharan of up to \$25,000, \$50,000 or \$100,000 on an annual basis contingent upon the achievement of certain milestones. We paid Dr. Sasisekharan \$100,000 and \$155,833 for consulting services in 2004 and 2005, respectively. Pursuant to an amendment dated November 8, 2005, we and Dr. Sasisekharan agreed to extend the term of the consulting agreement through August 15, 2006. Pursuant to a letter agreement dated September 7, 2006, we agreed to extend the term of the consulting agreement, as amended, through August 15, 2007. Pursuant to the terms of the amended agreement, Dr. Sasisekharan agreed (i) to provide consulting services relating to the our research and development activities and (ii) not to perform certain competing consulting services without the consent of our CEO through August 15, 2006 and for one year thereafter. As compensation under the amended agreement, Dr. Sasisekharan received an aggregate of \$150,000 payable in four equal quarterly installments. The consulting agreement expired pursuant to its terms on August 15, 2007. We paid Dr. Sasisekharan an aggregate of \$93,750 for consulting services in Fiscal 2007.

Consulting Agreement with Peter Barton Hutt

On September 18, 2006, we entered into an amendment to a consulting agreement dated September 18, 2002, as amended by the September 29, 2003, October 4, 2004 and September 22, 2005 letter agreements, with Peter Barton Hutt, a member of our board of directors, pursuant to which Mr. Hutt provided consulting services relating to regulatory strategies for drug development and the

operation of our business. The consulting agreement provided for no more than an average of one day of service per month. We granted Mr. Hutt options to purchase 5,000 and 4,000 shares of our common stock for consulting services in 2004 and 2005, respectively. The term of the consulting agreement was renewed for one year, commencing on September 18, 2006. As compensation under the amended consulting agreement, we granted Mr. Hutt nonstatutory stock options to purchase 6,500 shares of our common stock with an exercise price of \$12.81 per share. The options were issued under our 2004 Stock Incentive Plan, as amended, pursuant to the terms and conditions of the form of nonstatutory stock option grant agreement under such plan. The options have a three-year duration and vest in 12 equal monthly installments with the first installment vesting one month from the date of grant. The consulting agreement expired pursuant to its terms on September 18, 2007.

Consulting Agreement with Bennett M. Shapiro

On September 22, 2005, we entered into an amendment to a consulting agreement dated October 4, 2004 with Bennett M. Shapiro, a member of our board of directors, pursuant to which Dr. Shapiro provided consulting services relating to our research and development efforts. The term of the amended consulting agreement was for one year, commencing on October 4, 2005, and could be renewed for additional one-year terms by mutual agreement of us and Dr. Shapiro. We granted Dr. Shapiro options to purchase 10,000 and 4,000 shares of our common stock for consulting services in 2004 and 2005, respectively. Pursuant to an amendment dated September 25, 2006, the consulting agreement was extended for a term through October 3, 2007. As compensation under the amended consulting agreement, we granted Dr. Shapiro nonstatutory stock options to purchase 6,500 shares of our common stock with an exercise price of \$12.81 per share. In addition, we agreed to reimburse Dr. Shapiro for all reasonable travel and other expenses incurred by Dr. Shapiro in rendering services under the amended consulting agreement. The options were issued under our 2004 Stock Incentive Plan, as amended, pursuant to the terms and conditions of the form of nonstatutory stock option agreement under such plan. The options had a three-year duration and were to vest in 12 equal monthly installments with the first installment vesting one month from the date of grant. On March 30, 2007, we mutually agreed to terminate the consulting agreement, effective as of March 30, 2007. Dr. Shapiro forfeited 3,250 stock options and vested in 3,250 stock options as a result of the termination of the consulting agreement.

Other Relationships with Non-Employee Directors

Ram Sasisekharan Relationship with Parivid, LLC

Parivid, LLC had been engaged by us to provide data integration and analysis services. Ram Sasisekharan, a member of our board of directors, is the brother of S. Raguram, the chief technical officer of Parivid. For the years ending December 31, 2006 and 2005, we recorded \$1.0 million and \$0.7 million, respectively, in research and development expense related to work performed by Parivid. At December 31, 2006, we had no outstanding payables with Parivid.

On April 20, 2007, we entered into an Asset Purchase Agreement, or the Purchase Agreement, with Parivid and S. Raguram pursuant to which we acquired certain of the assets and assumed certain specified liabilities of Parivid related to the acquired assets for \$2,500,000 in cash paid at closing and up to \$11,000,000 in contingent milestone payments in a combination of cash and/or stock in the manner and on the terms and conditions set forth in the Purchase Agreement.

The contingent milestone payments are structured to include (i) potential payments of no more than \$2,000,000 in cash if certain milestones are achieved within two years from the date of the Purchase Agreement and (ii) the issuance of up to \$9,000,000 of our common stock to Parivid if certain other milestones are achieved within fifteen years of the date of the Purchase Agreement. In addition, upon the completion and satisfaction of those milestones that trigger the issuance of shares of common

stock, we have granted Parivid certain registration rights under the Securities Act of 1933, as amended, with respect to such shares. We also entered into an employment agreement with S. Raguram pursuant to the terms of the Purchase Agreement.

As part of our acquisition of assets from Parivid, two previous collaboration agreements with Parivid were terminated. Ram Sasisekharan did not receive, and will not receive in the future, consideration in connection with the execution of the Purchase Agreement.

POLICIES AND PROCEDURES FOR RELATED PERSON TRANSACTIONS

In 2007, our board of directors adopted written policies and procedures for the review of any transaction, arrangement or relationship in which we are a participant, the amount involved exceeds \$120,000, and one of our executive officers, directors, director nominees or 5% stockholders (or their immediate family members), each of whom we refer to as a "related person," has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction to our V.P. of Legal Affairs. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our audit committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the audit committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chairman of the audit committee to review and, if deemed appropriate, approve proposed related person transactions that arise between committee meetings, subject to ratification by the audit committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the audit committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Our audit committee may approve or ratify the transaction only if the audit committee determines that, under all of the circumstances, the transaction is in our best interests. Our audit committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the Securities and Exchange Commission's related person transaction disclosure rule, our board of directors has determined that the

following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person's position as an executive officer of another entity (whether or not the person is also a director of such entity), that is a participant in the transaction, where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction and (c) the amount involved in the transaction equals less than the greater of \$200,000 or 5% of the annual gross revenues of the company receiving payment under the transaction; and
- a transaction that is specifically contemplated by provisions of our charter or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by our compensation committee in the manner specified in its charter.

We will disclose the terms of related person transactions in our filings with the Securities and Exchange Commission to the extent required. Since January 1, 2007, we have not been a party to, and we have no plans to be a party to, any transaction or series of similar transactions in which the amount involved exceeded or will exceed \$120,000 and in which any current director, executive officer, holder of more than 5% of our capital stock, or any member of the immediate family of any of the foregoing, had or will have a direct or indirect material interest, other than in connection with the transactions described above.

PROPOSAL TWO

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board Recommendation

The board of directors recommends a vote FOR the ratification of the selection by the Audit Committee of Ernst & Young LLP as our independent registered public accounting firm for the year ending December 31, 2008.

The audit committee of our board of directors has selected the firm of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2008. Although stockholder approval of the board of directors' selection of Ernst & Young LLP is not required by law, our board of directors believes that it is advisable to give stockholders an opportunity to ratify this selection. If this proposal is not approved at the Annual Meeting, our board of directors will reconsider its appointment of Ernst & Young LLP. Representatives of Ernst & Young 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.

Auditors' Fees

The following table summarizes the fees of Ernst & Young LLP, our independent registered public accounting firm, billed to us for each of the last two fiscal years.

Fee Category	2007	2006
Audit Fees(1)	\$ 380,000	\$ 336,900
Audit-Related Fees(2)	—	9,500
Tax Fees(3)	27,100	39,400
Total Fees	\$ 407,100	\$ 385,800

- (1) Audit fees consist of fees for the audit of our financial statements, the audit of our internal control over financial reporting, the review of the interim financial statements included in our quarterly reports on Form 10-Q, and other professional services provided in connection with statutory and regulatory filings or engagements.
- (2) Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit and the review of our financial statements and which are not reported under "Audit Fees."
- (3) Tax fees consist of fees for tax compliance, tax advice and tax planning services. Tax compliance services, which relate to Federal and State tax return assistance accounted for \$15,000 of the total tax fees billed in Fiscal 2006 and \$15,500 of the total tax fees billed in Fiscal 2007. Tax advice and tax planning services relate to periodic consultations.

Pre-Approval Policies and Procedures

Our audit committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our independent registered public accounting firm. This policy generally provides that we will not engage our independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by our audit committee or the engagement is entered into pursuant to one of the pre-approval procedures described below.

From time to time, our audit committee may pre-approve specified types of services that are expected to be provided to us by our independent registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

Report of the Audit Committee

The audit committee has reviewed our audited consolidated financial statements for the fiscal year ended December 31, 2007 and has discussed these consolidated financial statements with our management and our independent registered public accounting firm. Management is responsible for the preparation of our consolidated financial statements and for maintaining an adequate system of disclosure controls and procedures and internal control over financial reporting for that purpose. Our independent registered public accounting firm is responsible for conducting an independent audit of our annual consolidated financial statements in accordance with generally accepted auditing standards and issuing a report on the results of their audit. The audit committee is responsible for providing independent, objective oversight of these processes.

The audit committee has also received from, and discussed with, our independent registered public accounting firm various communications that they are required to provide to the audit committee, including the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (AICPA, *Professional Standards*, Vol. 1, AU section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. SAS No. 61, as amended, requires our independent registered public accounting firm to discuss with our audit committee, among other things, the following:

- methods used to account for significant unusual transactions;
- the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;
- the process used by management in formulating particularly sensitive accounting estimates and the basis for the auditors' conclusions regarding the reasonableness of those estimates; and
- disagreements with management over the application of accounting principles, the basis for management's accounting estimates and the disclosures in the consolidated financial statements.

Our independent registered public accounting firm also provided the audit committee with the written disclosures and letter required by Independence Standards Board Standard No. 1 (*Independence Discussions with Audit Committees*) as adopted by the Public Company Accounting Oversight Board in Rule 3600T, and our audit committee has discussed with our independent registered public accounting firm their independence. Independence Standards Board Standard No. 1 requires auditors annually to disclose in writing all relationships that in the auditor's professional opinion may reasonably be thought to bear on independence, confirm their perceived independence and engage in a discussion of independence.

Based on the review and discussions referred to above, the audit committee recommended to our board of directors that the audited consolidated financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2007.

By the Audit Committee of the Board of Directors of Momenta Pharmaceuticals, Inc.:

Marsha H. Fanucci (Chairperson)
John K. Clarke
Stephen T. Reeders

STOCKHOLDER PROPOSALS

In order to be included in proxy material for the 2009 annual meeting of stockholders pursuant to Rule 14a-8 under the Securities and Exchange Act of 1934, as amended, stockholders' proposals must be received by us at our principal executive offices, 675 West Kendall Street, Cambridge, Massachusetts 02142, no later than January 7, 2009. We suggest that proponents submit their proposals by certified mail, return receipt requested, addressed to our Corporate Secretary, Steven N. Avruch, Esq.

Stockholders who intend to present a proposal at such meeting without inclusion of such proposal in our proxy materials pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended, are required to provide advanced notice of such proposal to us at the aforementioned address not later than March 23, 2009.

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 90 days prior to the first anniversary of the preceding year's annual meeting and not before 120 days prior to the first anniversary of the preceding year's annual meeting. However, if the 2008 annual meeting of stockholders is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the Annual Meeting, 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 the content of the notice that stockholders must provide, including a stockholder nomination for election to the board of directors, to be properly presented at the 2008 annual meeting of stockholders.

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 Momenta Pharmaceuticals, Inc., 675 West Kendall Street, Cambridge, Massachusetts 02142, Attention: Richard P. Shea, Chief Financial Officer and Treasurer, telephone: (617) 491-9700. 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.

OTHER MATTERS

Our board of directors is not aware of any matter to be presented for action at the Annual Meeting other than the matters referred to above and does not intend to bring any other matters before the Annual Meeting. However, if other matters should properly come before the Annual Meeting, it is intended that holders of the proxies will vote thereon in their discretion.

GENERAL

The accompanying proxy is solicited by and on behalf of our board of directors, whose notice of meeting is attached to this proxy statement, and the entire cost of such solicitation will be borne by us.

In addition to the use of the mails, proxies may be solicited by personal interview, telephone and telegram by directors, officers and other employees of Momenta who will not be specially compensated for these services. We will also request that brokers, nominees, custodians and other fiduciaries forward soliciting materials to the beneficial owners of shares held of record by such brokers, nominees, custodians and other fiduciaries. We will reimburse such persons for their reasonable expenses in connection therewith.

Certain information contained in this proxy statement relating to the occupations and security holdings of our directors and officers is based upon information received from the individual directors and officers.

WE WILL FURNISH, WITHOUT CHARGE, A COPY OF OUR REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2007, INCLUDING CONSOLIDATED FINANCIAL STATEMENTS BUT NOT INCLUDING EXHIBITS, TO EACH OF OUR STOCKHOLDERS OF RECORD ON APRIL 14, 2008, AND TO EACH BENEFICIAL STOCKHOLDER ON THAT DATE UPON WRITTEN REQUEST MADE TO STEVEN N. AVRUCH, CORPORATE SECRETARY, MOMENTA PHARMACEUTICALS, INC., 675 WEST KENDALL STREET, CAMBRIDGE, MASSACHUSETTS 02142. A REASONABLE FEE WILL BE CHARGED FOR COPIES OF REQUESTED EXHIBITS.

PLEASE VOTE YOUR SHARES OVER THE INTERNET OR BY TELEPHONE AS PROVIDED IN THE INSTRUCTIONS SET FORTH ON THE ENCLOSED PROXY CARD, OR COMPLETE, DATE, SIGN AND RETURN THE PROXY CARD AT YOUR EARLIEST CONVENIENCE IN THE ENCLOSED RETURN ENVELOPE. A PROMPT RETURN OF YOUR PROXY CARD WILL BE APPRECIATED AS IT WILL SAVE THE EXPENSE OF FURTHER MAILINGS.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "Craig A. Wheeler", followed by a long horizontal line extending to the right.

Craig A. Wheeler
President and Chief Executive Officer

Cambridge, Massachusetts
May 7, 2008

MOMENTA PHARMACEUTICALS, INC.
675 WEST KENDALL STREET
CAMBRIDGE, MA 02142

VOTE BY INTERNET – www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE STOCKHOLDER COMMUNICATIONS

If you would like to reduce the costs incurred by Momenta Pharmaceuticals, Inc. in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access stockholder communications electronically in future years.

VOTE BY PHONE – 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Momenta Pharmaceuticals, Inc., c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: MOMTA1 KEEP THIS PORTION FOR YOUR RECORDS
DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

MOMENTA PHARMACEUTICALS, INC.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSALS 1 AND 2.

Vote on Directors

- | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|
| 1. | To elect the following three (3) nominees as Class I Directors of the Company. | For All | Withhold All | For All Except |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | NOMINEES | | | |
| | (01) Alan L. Crane | | | |
| | (02) Peter Barton Hutt | | | |
| | (03) Marsha H. Fanucci | | | |

To withhold authority to vote for any individual nominee(s), mark “For All Except” and write the number(s) of the nominee(s) on the line below.

Vote on Proposal

- | | | | | |
|----|--|--------------------------|--------------------------|--------------------------|
| 2. | To ratify the selection by the Audit Committee of Ernst & Young LLP as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2008. | For | Against | Abstain |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE.

Note: Please sign exactly as your name or names appear(s) on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

Yes No

Please indicate if you plan to attend this meeting.

Signature [PLEASE SIGN WITHIN BOX]

Date

Signature (Joint Owners)

Date

**ANNUAL MEETING OF STOCKHOLDERS OF
MOMENTA PHARMACEUTICALS, INC.**

June 4, 2008

**Please date, sign and mail
your proxy card in the
envelope provided as soon
as possible.**

Dear Stockholder:

Please take note of the important information enclosed with this proxy card. There are matters related to the operation of the Company that require your prompt attention. Your vote counts, and you are strongly encouraged to exercise your right to vote your shares.

Please mark the boxes on the proxy card to indicate how your shares will be voted. Then sign and date the card, detach it and return your proxy in the enclosed postage paid envelope.

Thank you in advance for your prompt consideration of these matters.

Sincerely,

Momenta Pharmaceuticals, Inc.

Please detach along perforated line and mail in the envelope provided.

**PROXY
MOMENTA PHARMACEUTICALS, INC.
675 WEST KENDALL STREET
CAMBRIDGE, MASSACHUSETTS 02142**

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
FOR THE ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON JUNE 4, 2008**

The undersigned, revoking all prior proxies, hereby appoints Craig A. Wheeler and Richard P. Shea, as proxies, each with the power to appoint his substitute, and hereby authorizes each of them to represent and vote, as designated on the reverse side, all shares of common stock of Momenta Pharmaceuticals, Inc. held of record by the undersigned on April 14, 2008 at the Annual Meeting of Stockholders to be held on June 4, 2008 at 10:00 a.m., local time, at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109 and any adjournments thereof. The undersigned hereby directs Messrs. Wheeler and Shea to vote in accordance with their best judgment on any matters which may properly come before the Annual Meeting, all as indicated in the Notice of Annual Meeting, receipt of which is hereby acknowledged, and to act on the matters set forth in such Notice as specified by the undersigned.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED. IF NO DIRECTION IS GIVEN WITH RESPECT TO A PARTICULAR PROPOSAL, THIS PROXY WILL BE VOTED FOR PROPOSALS 1 AND 2, AND IN THE DISCRETION OF MESSRS. WHEELER AND SHEA, ON ANY OTHER ITEMS THAT MAY PROPERLY COME BEFORE THE ANNUAL MEETING. ATTENDANCE OF THE UNDERSIGNED AT THE ANNUAL MEETING OR AT ANY ADJOURNMENT THEREOF WILL NOT BE DEEMED TO REVOKE THE PROXY UNLESS THE UNDERSIGNED REVOKES THIS PROXY IN WRITING.

(Continued and to be signed on the reverse side)
