

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
SCHEDULE 14A**

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No. __)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to Rule 14a-12

MEDICINOVA, INC.

(Name of Registrant as Specified In Its Charter)

Name of Person(s) Filing Proxy Statement, if other than the Registrant

Payment of Filing Fee (Check the appropriate box):

- No fee required.
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(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

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(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:



April 29, 2010

Dear Stockholder:

You are cordially invited to attend the Annual Meeting of Stockholders of MediciNova, Inc. The meeting will be held on Thursday, June 10, 2010, at 3:00 p.m. Pacific Daylight Time at the Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122.

With this letter we have enclosed a copy of our Annual Report to Stockholders for the fiscal year ended December 31, 2009, Notice of Annual Meeting of Stockholders, Proxy Statement and proxy card. These materials provide further information concerning our Annual Meeting. If you would like another copy of the Annual Report, please send your request to MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, Attention: Investor Relations, and one will be mailed to you. It is also available on our Internet site at www.medicinova.com.

After reading the Proxy Statement, please mark, date, sign and return the enclosed proxy to ensure that your shares will be represented. **WE CANNOT ENSURE THAT YOUR SHARES WILL BE VOTED UNLESS YOU SIGN, DATE AND RETURN THE ENCLOSED PROXY SO THAT IT IS RECEIVED BY JUNE 8, 2010, OR YOU ATTEND THE ANNUAL MEETING IN PERSON.** Your vote is important, so please return your proxy promptly.

The Board of Directors and management look forward to seeing you at the meeting.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Yuichi".

Yuichi Iwaki, M.D., Ph.D.
President, Chief Executive Officer and Director



**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD JUNE 10, 2010**

To the Stockholders of MediciNova, Inc.:

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of MediciNova, Inc., a Delaware corporation, or MediciNova, will be held on Thursday, June 10, 2010, at 3:00 p.m. Pacific Daylight Time at the Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122 for the following purposes:

1. To elect two Class III directors to serve until the 2013 Annual Meeting of Stockholders and until each of their successors has been duly elected and qualified unless he or she resigns or is removed;
2. To ratify the appointment of KPMG LLP as MediciNova's independent registered public accounting firm for the fiscal year ending December 31, 2010; and
3. To transact such other business as may properly come before the Annual Meeting and any adjournment or postponement of the Annual Meeting.

Stockholders of record as of the close of business on April 19, 2010 are entitled to notice of, and to vote at, the Annual Meeting and any adjournment or postponement thereof. A complete list of stockholders entitled to vote at the Annual Meeting will be available for inspection at MediciNova's offices, located at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, for ten days prior to the meeting.

It is important that your shares are represented at the Annual Meeting. Even if you plan to attend the meeting in person, we hope that you will mark, sign and date the enclosed proxy and return it promptly so that it is received by June 8, 2010. This will not limit your right to attend or vote at the meeting.

By Order of the Board of Directors,

Yuichi Iwaki, M.D., Ph.D.
President, Chief Executive Officer and Director

San Diego, California
April 29, 2010

MEDICINOVA, INC.
4350 LA JOLLA VILLAGE DRIVE, SUITE 950
SAN DIEGO, CALIFORNIA 92122

**PROXY STATEMENT FOR THE ANNUAL MEETING OF
STOCKHOLDERS TO BE HELD JUNE 10, 2010**

What is this document?

This document is the Proxy Statement of MediciNova, Inc., a Delaware corporation, for the Annual Meeting of Stockholders to be held at 3:00 p.m., Pacific Daylight Time, on Thursday, June 10, 2010. A form of proxy card is included. This document and the form of proxy card are first being mailed or given to stockholders on or about May 5, 2010.

We refer to our company throughout this document as “we,” “us,” the “Company” or “MediciNova.”

Why I am receiving this document?

You are receiving this document because you were one of our stockholders of record as of the close of business on April 19, 2010, the record date for our Annual Meeting, or the Record Date. We are sending this document and the form of proxy card to solicit your proxy to vote upon certain matters at the Annual Meeting.

When and where is the Annual Meeting being held, and who may attend?

The Annual Meeting is scheduled to be held on Thursday, June 10, 2010, at 3:00 p.m. Pacific Daylight Time at the Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122, as well as any adjournment or postponement thereof. Only stockholders, their proxy holders and our invited guests may attend the meeting. If a broker, bank or other nominee holds your shares in street name, please bring a copy of the account statement reflecting your ownership as of April 19, 2010 so that we may verify your status as a stockholder and have you check in at the registration desk for the meeting. For security reasons, we also may require photo identification for admission. If you would like directions to the meeting, please send your request to MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, Attention: Investor Relations.

What is a proxy, and who is paying the costs to prepare this document and solicit my proxy?

A proxy is your legal designation of another person to vote your shares of our common stock, par value \$0.001 per share, or the Common Stock. The document that designates someone as your proxy is also called a proxy or a proxy card.

We will pay all expenses of this solicitation, including the cost of preparing and mailing this Proxy Statement and the form of proxy card.

Who is soliciting my proxy and will anyone be compensated to solicit my proxy?

Your proxy is being solicited by and on behalf of our Board of Directors, or the Board. In addition to solicitation by use of the mails, proxies may be solicited by our officers and employees in person or by personal interview, telephone, electronic mail, facsimile transmission or other means of communication. Our officers and employees will not be additionally compensated, but they may be reimbursed for out-of-pocket expenses in connection with any solicitation. We also may reimburse custodians, nominees and fiduciaries for their expenses in sending proxies and proxy material to beneficial owners. To help ensure that we have the necessary quorum to hold the Annual Meeting, we have hired the firm of Advantage Proxy to assist in soliciting proxies for fees estimated at approximately \$2,500.

Who is entitled to vote at the Annual Meeting?

Only holders of shares of our Common Stock as of the Record Date are entitled to vote at the Annual Meeting. As of the close of business on the Record Date, we had 12,380,497 shares of our Common Stock outstanding.

How many votes do I have, and can I cumulate my vote?

You have one vote for each share of our Common Stock that you held as of the Record Date. Cumulative voting is not allowed.

How many votes must be present to hold the Annual Meeting?

A quorum must be present at the Annual Meeting for any business to be conducted. A quorum exists when the holders of a majority of the 12,380,497 shares of our Common Stock outstanding as of the Record Date are present in person or by proxy at the Annual Meeting. If we do not have a quorum, we will be forced to reconvene the Annual Meeting at a future date.

How may I vote my shares?

You may vote your shares of our Common Stock at the Annual Meeting either in person or by proxy. To vote by proxy, you must mark, date, sign and mail the enclosed proxy. Giving a proxy will not affect your right to vote your shares if you attend the Annual Meeting and want to vote in person. The shares represented by the proxies received in response to this solicitation and not properly revoked will be voted at the Annual Meeting in accordance with the instructions therein.

What am I voting on?

You will be asked to vote on the following:

- the election of two Class III directors;
- the ratification of the appointment of our independent registered public accounting firm for 2010; and
- such other business that may properly come before the meeting.

How many votes are needed to elect directors and ratify the appointment of our accounting firm?

Directors are elected by a plurality vote of the votes cast by the holders of shares of our Common Stock entitled to vote at the Annual Meeting. A plurality vote means that the directors who receive the most votes in an election, though not necessarily a majority, will be elected.

The ratification of the appointment of KPMG LLP as our independent registered public accounting firm will be decided by the affirmative vote of a majority of the shares present in person or represented by proxy at the Annual Meeting and entitled to vote on such proposal.

May other matters be raised at the Annual Meeting; how will the meeting be conducted?

We currently are not aware of any business to be acted upon at the Annual Meeting other than the three matters described above. Under Delaware law and our governing documents, no other business aside from procedural matters may be raised at the Annual Meeting unless proper notice has been given to us by the stockholders. If other business is properly raised, your proxies have authority to vote as they think best, including to adjourn the meeting.

We have broad authority to conduct the Annual Meeting so that the business of the meeting is carried out in an orderly and timely manner. In doing so, we have broad discretion to establish reasonable rules for discussion, comments and questions during the meeting. We are also entitled to rely upon applicable law regarding disruptions or disorderly conduct to ensure that the Annual Meeting proceeds in a manner that is fair to all participants.

How are abstentions and broker non-votes counted?

Abstentions are included in the determination of shares present for quorum purposes. Because abstentions represent shares entitled to vote on any matter presented for shareholder approval, the effect of an abstention will be the same as a vote against a proposal. Shares represented by broker non-votes will be counted in determining whether there is a quorum present but will not be counted as votes either in favor or against a particular proposal.

If my shares are held by my broker in street name, will my broker vote my shares for me?

If you are the beneficial owner of shares held in “street name” by a broker, your broker is the record holder of the shares. The broker, however, is required to vote those shares in accordance with your instructions. If you do not give instructions to your broker, your broker may exercise discretionary voting power to vote your shares with respect to routine matters, but the broker may not exercise discretionary voting power to vote your shares with respect to “non-routine” items. In the case of non-routine items, the shares that cannot be voted by your broker would be treated as “broker non-votes.” At the Annual Meeting, only the ratification of the appointment of KPMG LLP is a routine item for which your broker may exercise discretionary voting power.

How will my proxy be voted?

The individuals named on the proxy card will vote your proxy in the manner you indicate on the proxy card. If your shares are not held in street name and you return your proxy but do not mark your voting preference, the individuals named as proxies will vote your shares: (i) **FOR** the election of the two nominees for Class III director to serve until the 2013 Annual Meeting of Stockholders and until their successors are duly elected and qualified; and (ii) **FOR** the ratification of the appointment of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2010.

If your shares are held in street name and you do not mark your voting preference on “Proposal One: Election of Directors”, your shares will not be voted and the shares become broker non-votes as to the particular proposal. If your shares are held in street name and you return your proxy but do not mark your voting preference, the bank, broker or other nominee has the authority to vote your unvoted shares on “Proposal Two: Ratification of Appointment of Independent Registered Public Accounting Firm.” If the bank, broker or other nominee does not vote your unvoted shares on this proposal, the shares become “broker non-votes” as to the particular proposal.

We encourage you to provide voting instructions. This ensures your shares of Common Stock will be voted at the Annual Meeting in the manner you desire.

Can I change my mind and revoke my proxy?

Yes. To revoke a proxy given in response to this solicitation, you must:

- attend the Annual Meeting and vote in person;
- submit a written notice of revocation to us prior to or at the Annual Meeting; or
- submit another proxy of a later date that is properly executed prior to or at the Annual Meeting.

Will my vote be confidential?

Yes. We will continue our practice of keeping the votes of all stockholders confidential. Stockholder votes will not be disclosed to our directors, officers, employees or agents, except:

- as necessary to meet applicable legal requirements;
- in a dispute regarding authenticity of proxies and ballots;
- in the case of a contested proxy solicitation, if the other party soliciting proxies does not agree to comply with the confidential voting policy; or
- when a stockholder makes a written comment on the proxy card or otherwise communicates the vote to management.

Where is our common stock traded?

Our common stock is traded and quoted on the Nasdaq Global Market, or Nasdaq, under the symbol “MNOV” and on the Hercules Market of the Osaka Stock Exchange under the code “4875.”

IMPORTANT

Please mark, sign and date the enclosed proxy and return it promptly so that it is received by June 8, 2010 to ensure that your shares can be voted, whether or not you intend to be present at the Annual Meeting. This will not limit your rights to attend or vote in person at the Annual Meeting.

MATTERS TO BE CONSIDERED AT THE ANNUAL MEETING

PROPOSAL ONE:

ELECTION OF CLASS III DIRECTOR

General

The Board currently consists of six members divided into three classes, each serving staggered three-year terms as follows:

- Class III, whose term will expire at the Annual Meeting;
- Class I, whose term will expire at the Annual Meeting of Stockholders to be held in 2011; and
- Class II, whose term will expire at the Annual Meeting of Stockholders to be held in 2012.

The Class III members of the Board are scheduled for election at the Annual Meeting. The Nominating and Corporate Governance Committee of the Board has recommended, and the Board has designated, Arlene Morris and John K.A. Prendergast, Ph.D., each of whom is an incumbent director, to be elected as the Class III director at the Annual Meeting. If elected at the Annual Meeting, each Class III director will hold office until the Annual Meeting of Stockholders in 2013 and until each of their successors has been duly elected and qualified unless he or she resigns or is removed. If either Ms. Morris or Dr. Prendergast is unable or declines to serve as a director at the time of the Annual Meeting, proxies will be voted for any nominee designated by the Board, taking into account a recommendation by the Nominating and Corporate Governance Committee, if any, to fill the vacancy.

Election of two Class III directors will require the affirmative vote of a plurality of the shares present and voting at the Annual Meeting in person or by proxy.

Biographical Information

Biographical information concerning the Class III director nominees as of the date of this Proxy Statement is set forth below.

<u>Name</u>	<u>Served as Director Since</u>	<u>Age</u>	<u>Principal Business Experience</u>
Arlene Morris	2006	58	<i>Arlene Morris</i> has served as a director since May 2006. Ms. Morris brings significant expertise in the establishment of strategic partnerships, marketing and operations to us. Ms. Morris was appointed President and Chief Executive Officer of Affymax, Inc., a Nasdaq-listed biotechnology company, in June 2003. From 2001 to 2003, she served as the President and Chief Executive Officer of Clearview Projects, Inc. Prior to that, Ms. Morris served from 1996 to 2001 as the Senior Vice President, Business Development for Coulter Pharmaceutical Inc. Previously, she was the Vice President of Business Development at Scios, Inc. from 1993 to 1996, where she completed several high profile transactions, including one of the first biotech profit-sharing deals for a late-stage product. From 1977 through 1993, Ms. Morris held various management and executive positions at Johnson & Johnson in sales, marketing, new product development and business

<u>Name</u>	<u>Served as Director Since</u>	<u>Age</u>	<u>Principal Business Experience</u>
			development, holding the position of Vice President of Business Development for McNeil Pharmaceutical from 1988 to 1993. She received her B.A. degree in Biology and Chemistry from Carlow College and studied marketing at Western New England College. Ms. Morris also serves on the board of directors of BIO, the Biotechnology Industry Organization, Nuon Corporation and Affymax, Inc. Based on her extensive experience in the biotechnology industry, her prior leadership positions and her current senior management and board service, the Board believes Ms. Morris has the appropriate set of skills to serve as a member of our Board.
John K.A. Prendergast, Ph.D.	2004	56	<i>John K.A. Prendergast, Ph.D.</i> has served as a director since September 2004. Since 1993, Dr. Prendergast has served as President of SummerCloud Bay Inc., an independent consulting firm providing services to the biotechnology industry. Dr. Prendergast is a co-founder and currently serves as chairman of the board of directors of Palatin Technologies, Inc., an NYSE Amex Equities-listed biopharmaceutical company. He is also currently serving as chairman of the board of directors of AVAX Technologies, Inc., an over-the-counter traded biotechnology company, and as the executive chairman of the board of directors and chief executive officer of Antyra, Inc., a privately held biopharmaceutical company. Prior to our acquisition of Avigen, Inc., or Avigen, Dr. Prendergast served as a member of the Board of Avigen from 1992 to 2009. Dr. Prendergast received B.Sc., M.Sc. and Ph.D. degrees from the University of New South Wales, Sydney, Australia and a C.S.S. in Administration and Management from Harvard University. Based on his extensive experience in the biotechnology industry, his prior leadership positions and his current board service at other biotechnology companies, the Board believes Dr. Prendergast has the appropriate set of skills to serve as a member of our Board.

Biographical information concerning each of the Class I directors as of the date of this Proxy Statement, who will serve until the 2011 Annual Meeting of Stockholders, is set forth below.

<u>Name</u>	<u>Served as Director Since</u>	<u>Age</u>	<u>Principal Business Experience</u>
Alan W. Dunton, M.D.	2006	55	<i>Alan W. Dunton, M.D.</i> has served as a director since May 2006 and as a consultant since June 2009 under the terms of a contract between MediciNova and Danerius, LLC, an affiliate of Dr. Dunton. Dr. Dunton is a recognized expert in prescription drug development and clinical research. His twenty years of experience are marked by the development

<u>Name</u>	<u>Served as Director Since</u>	<u>Age</u>	<u>Principal Business Experience</u>
			<p>and approval of the prescription drugs Levaquin® (antibiotic), TOPAMAX® (epilepsy), Reminyl® (Alzheimer’s disease), Regranex® (diabetic foot ulcers), Risperdal® (antipsychotic) as well as the successful over-the-counter product Aleve® (arthritis). Dr. Dunton became Chief Executive Officer of Panacos Pharmaceuticals, Inc. in January 2007 and also serves as Director. Since January 2006, he has been a consulting principal at Danerius, LLC, which currently provides consulting services to MediciNova relating to MediciNova’s product development programs. Prior to that time, Dr. Dunton was President and Chief Executive Officer of Metaphore Pharmaceuticals, Inc. from February 2003 until Metaphore Pharmaceuticals merged with ActivBiotics Inc. in December 2005. In 2002, Dr. Dunton served as president, chief operating officer and a director of Emisphere Technologies, Inc., a biopharmaceutical company. Before joining Emisphere, Dr. Dunton was the President and Managing Director of the Janssen Research Foundation, a Johnson & Johnson company. In this capacity, he was responsible for the research and development of new prescription drug products marketed by the Johnson & Johnson family of companies worldwide. He was a member of the Group Operating Committee of the J&J Pharmaceutical Group, a member of the Board of Janssen Pharmaceutica, N.V. and Chairman of Janssen-Cilag, International. His experiences also included positions with F. Hoffman-La Roche, Ltd., or Roche, Ciba-Geigy Ltd. (now Novartis AG) and Laboratorios Syntex SA (now Roche). In addition, Dr. Dunton was a member of the Board of Adams Respiratory Therapeutics, Inc. (now Reckitt Benckiser Plc) from 2006 to 2008 and Vicuron Pharmaceuticals, Inc. from 2004 to 2005. Dr. Dunton also developed and implemented an Ethical Code for the Conduct of Clinical Research and was a recipient of the prestigious Nellie Westerman Prize from the American Federation of Clinical Research for his work in medical ethics. He is also a director of Targacept, Inc., a Nasdaq-listed biopharmaceutical company. Dr. Dunton received his M.D. degree from New York University School of Medicine and completed his post-graduate training in Internal Medicine at the New York University Medical Center/Bellevue Hospital VA Medical Center and in Clinical Pharmacology at Cornell University Medical College/New York Hospital. Based on his medical background, extensive experience in the development and approval processes for prescription drugs and his senior management roles at various biopharmaceutical companies, the Board believes Dr. Dunton has the appropriate set of skills to serve as a member of our Board.</p>

<u>Name</u>	<u>Served as Director Since</u>	<u>Age</u>	<u>Principal Business Experience</u>
Jeff Himawan, Ph.D.	2006	45	<i>Jeff Himawan, Ph.D.</i> has served as a director since January 2006 and became Chairman of the Board of Directors in March 2007. Dr. Himawan is a Managing Director of Essex Woodlands Health Ventures, L.P., which he joined in 2001. Essex Woodlands Health Ventures and its affiliates own approximately 10% of our outstanding Common Stock. Prior to joining Essex Woodlands Health Ventures, Dr. Himawan was Managing Director and Co-founder of Seed-One Ventures, LLC. Prior to Seed-One Ventures, he was a scientist in academic and industrial settings. Dr. Himawan also served as a member of the Board of Iomai Corporation (now Intercell USA, Inc.) from 2002 to 2007. Dr. Himawan holds a B.S. in biology from the Massachusetts Institute of Technology and a Ph.D. in biological chemistry and molecular pharmacology from Harvard University. Based on his background in corporate finance and capital raising and his extensive experiences in the biotechnology industry, the Board believes Dr. Himawan has the appropriate set of skills to serve as a member of our Board.

Biographical information concerning each of the Class II directors as of the date of this Proxy Statement, who will serve until the 2012 Annual Meeting of Stockholders, is set forth below.

<u>Name</u>	<u>Served as Director Since</u>	<u>Age</u>	<u>Principal Business Experience</u>
Yuichi Iwaki, M.D., Ph.D.	2000	60	<i>Yuichi Iwaki, M.D., Ph.D.</i> is our founder and served as the chairman of the Board of Directors from our inception in September 2000 to March 2007, becoming Executive Chairman in July 2005, Acting Chief Executive Officer as of September 2005 and President and Chief Executive Officer as of March 2006. From September 2001 until January 2007, Dr. Iwaki also served as our consultant in connection with financing transactions and business development activities. Dr. Iwaki was a member of the Board of Avigen from 1994 to 2008. He holds three professorships at the University of Southern California School of Medicine in the Departments of Urology, Surgery and Pathology and has been Director of the Transplantation Immunology and Immunogenetic Laboratory since 1992. Dr. Iwaki is also a visiting professor at the Nihon University School of Medicine and Kyushu University. Prior to joining the faculty at the University of Southern California School of Medicine, Dr. Iwaki held professorships at the University of Pittsburgh School of Medicine in the Departments of Surgery and Pathology from 1989 through 1991. Dr. Iwaki received both his M.D. and Ph.D. degrees from Sapporo Medical School in Sapporo, Japan. Dr. Iwaki is the author

<u>Name</u>	<u>Served as Director Since</u>	<u>Age</u>	<u>Principal Business Experience</u>
			of more than 200 peer-reviewed publications and more than 40 book chapters. Dr. Iwaki has been advising pharmaceutical companies and venture capital funds regarding research and investment strategies for over 25 years and serves on the board of directors of several biotechnology companies. Based on his medical background, relationships with leading Japanese biotechnology companies and extensive experiences as a professor and as an advisor to pharmaceutical companies, the Board believes Dr. Iwaki has the appropriate set of skills to serve as a member of our Board.
Hiroaki Shigeta	2009	67	Hiroaki Shigeta has served as a director since September 2009. Mr. Shigeta has served as a director of The Medicines Company, a company listed on The NASDAQ Stock Market, Inc., since April 2007. Mr. Shigeta served as a consultant to The Medicines Company from July 2006 to December 2007. From January 2005 until June 2006, he served as a consultant to various Japanese pharmaceutical companies. From October 1993 to December 2004, Mr. Shigeta served in a variety of senior management positions with Hoffman-La Roche, Inc. and its affiliates. From January 2003 to December 2004, Mr. Shigeta was the U.S. Head, Far East Relations of Hoffman-La Roche and from June 2002 to April 2003, he was a Member of the Board of Chugai Seiyaku KK, Tokyo, a majority-owned affiliate of Roche Holding of Switzerland. From January 2001 to May 2002, Mr. Shigeta served as Chairman and Representative Director of Nippon Roche KK, a pharmaceutical company and a Japanese affiliate of Roche Holding of Switzerland. From October 1993 to December 2000, Mr. Shigeta was the President and Chief Executive Officer of Nippon Roche KK. Mr. Shigeta received a B.A. in economics from Momoyama Gakuin University in Osaka, Japan and a B.S. from Haas Business School, University of California at Berkeley. Based on his relationships with leading Japanese biotechnology companies and extensive experience as a consultant and senior manager of various pharmaceutical companies, the Board believes Mr. Shigeta has the appropriate set of skills to serve as a member of our Board.

The Board recommends a vote “FOR” election of each of Ms. Morris and Dr. Prendergast as a Class III Director.

Director Independence

The Board believes that a majority of the Board members should consist of independent directors. The Board also believes that it is useful and appropriate to have one or more members of management, including the President and Chief Executive Officer, serve as directors. The Board has determined that each of Dr. Himawan, Ms. Morris, Dr. Prendergast and Mr. Shigeta is an independent director as defined by the Nasdaq Marketplace Rule 5605(a)(2). The Board has also determined that each of the members of our Audit Committee is “independent” for purposes of Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Nasdaq Marketplace Rule 5605(c)(2).

Nominations for Directors

The Board has as an objective that its membership be composed of experienced and dedicated individuals with diversity of experience, perspectives and skills. The Nominating and Corporate Governance Committee has the responsibility to identify, evaluate, recruit and recommend qualified candidates to the Board for nomination or election. The Nominating and Corporate Governance Committee will select candidates for election as director based on their character, judgment, diversity of experience, business acumen and ability to act on behalf of all stockholders. The satisfaction of these criteria is implemented and assessed through ongoing consideration of the directors and nominees by the Nominating and Corporate Governance Committee and the Board. Based upon these activities and its review of the current composition of the Board and the director-nominees, the Nominating and Corporate Governance Committee and the Board believe that these criteria have been satisfied.

The Nominating and Corporate Governance Committee believes that nominees for director should have relevant experience, such as experience in management or accounting and finance or industry and technology knowledge that may be useful to us and the Board, high personal and professional ethics and the willingness and ability to devote sufficient time to effectively carry out his or her duties as a director. Diversity in professional experience, skills and other individual qualities and attributes that contribute to Board heterogeneity are among the factors that the Nominating and Corporate Governance Committee typically takes into account and seeks to foster in identifying nominees so that members of the Board represent different viewpoints and backgrounds. The Nominating and Corporate Governance Committee believes it appropriate for a majority of the members of the Board to meet the definition of “independent director” under the Nasdaq Marketplace Rules. The Nominating and Corporate Governance Committee also believes it is appropriate for our President and Chief Executive Officer to serve as a member of the Board.

Prior to each annual meeting of stockholders, the Nominating and Corporate Governance Committee identifies nominees for director by first evaluating the current directors whose term will expire at the annual meeting and who are willing to continue in service. These candidates are evaluated based on the criteria described above, including as demonstrated by the candidate’s prior service as a director, and the needs of the Board with respect to the particular talents and experience of its directors. In the event that a director does not wish to continue in service, the Nominating and Corporate Governance Committee determines not to re-nominate a director, or a vacancy is created on the Board as a result of a resignation, an increase in the size of the Board or other event, the Nominating and Corporate Governance Committee will consider various candidates for Board membership, including those suggested by the Nominating and Corporate Governance Committee members, other Board members, members of management, any executive search firm engaged by the Nominating and Corporate Governance Committee and stockholders. Once a slate of candidates is chosen by the Nominating and Corporate Governance Committee, the Nominating and Corporate Governance Committee recommends the candidates to the entire Board, and the Board then determines whether to designate the slate to be elected at the annual meeting of stockholders.

The Nominating and Corporate Governance Committee evaluates any nominees recommended by stockholders in the same manner that potential nominees suggested by Board members, management or other parties are evaluated. A stockholder who wishes to suggest a prospective nominee for the Board should notify

any member of the Nominating and Corporate Governance Committee in writing with any supporting material the stockholder considers appropriate, which should be sent to our corporate headquarters at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122.

In addition, our Amended and Restated Bylaws, or the Bylaws, contain provisions that address the process by which a stockholder may nominate an individual to stand for election to the Board at the annual meeting of stockholders. In order to be considered, a recommendation for a candidate by a stockholder must be timely delivered in writing to us and otherwise comply with the provisions of the Bylaws. The recommendation must include the following written information: the name, contact information and share ownership information for the candidate and the stockholder making the nomination and the citizenship information of the nominee and other information about the nominee that must be disclosed proxy solicitations under Section 14 of the Exchange Act and the related rules and regulations under that section. The Nominating and Corporate Governance Committee may also require any proposed nominee to furnish such other information as may reasonably be required by the Nominating and Corporate Governance Committee to determine the eligibility of such proposed nominee to serve as director. The recommendation should be sent to: Nominating and Corporate Governance Committee, MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122. You can obtain a copy of the Bylaws by writing to us at this address.

Board Leadership Structure and Risk Oversight Function of the Board

The Board recognizes that one of its key responsibilities is to evaluate and determine its optimal leadership structure so as to provide independent oversight of management. The Board understands that there is no single, generally accepted approach to providing Board leadership and that Board leadership structure may vary as circumstances warrant. The leadership structure of our Board currently consists of an independent Chairman of the Board who oversees the Board and works closely with our Chief Executive Officer regarding Board matters. Our Chairman, Dr. Himawan, does not serve as our Chief Executive Officer as we believe this structure enhances the independence of our Board. Each of our Board committees is chaired by Dr. Prendergast, an independent director, who reports to the full Board on the activities and decisions made by the committees. We believe this leadership structure, with separate roles of Chairman and Chief Executive Officer and the same independent director chairing all of our committees, helps to facilitate efficient decision-making and communication among our directors.

Subject to active oversight by the Board, our management is primarily responsible for managing the risks we face in the ordinary course of operating our business. Our Board receives operations and strategic presentations from management, which presentations include discussions of the principal risks to our business. In addition, the Board has delegated certain risk oversight functions to each of its committees. The Audit Committee assists the Board in risk oversight functions related to specific areas such as treasury management, equity administration and contracts policy. The Audit Committee also reviews and discusses with management our system of disclosure controls and procedures and our internal controls over financial reporting. The Compensation Committee assists the Board in risk oversight functions related to our compensation policies and programs and employee retention issues. The Nominating and Corporate Governance Committee assists the Board in risk oversight functions related to important compliance matters, including periodic reviews of the Code of Ethics and Code of Business Conduct to ensure compliance with applicable securities laws and regulations and stock market rules. We believe that this leadership structure enhances our efficiency in fulfilling our oversight functions with respect to our business and facilitates division of risk management oversight responsibilities among the full Board, each of its committees and our management team.

Communications

If you wish to communicate with the Board, you may send your communication in writing to: Chairman of the Board of Directors, MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, who will forward all material communications received to the appropriate director or directors or committee of the Board based on the subject matter. You must include your name and address in the written communication and indicate whether you are a stockholder of us.

Code of Ethics and Code of Business Conduct

We have adopted a Code of Ethics for Senior Officers for the Chief Executive Officer, President, Chief Financial Officer and key management employees (including other senior financial officers) who have been identified by the Board. We also have adopted a Code of Business Conduct that applies to employees, consultants, representatives, officers and directors. Each of the Code of Ethics for Senior Officers and Code of Business Conduct may be found under the Investor Relations-Corporate Governance section of our website at www.medicinova.com. We will post on our website (i) any waiver, if and when granted, to any provision of the Code of Ethics for Senior Officers or Code of Business Conduct (for executive officers or directors) and (ii) any amendment to the Code of Ethics for Senior Officers or Code of Business Conduct.

Legal Proceedings

On August 24, 2009, The Pennsylvania Avenue Funds, an Avigen stockholder, filed a complaint in Alameda County Superior Court alleging that Avigen's directors breached their fiduciary duties in connection with the proposed transaction with us. On October 15, 2009, The Pennsylvania Avenue Funds filed an amended complaint adding us as a defendant. In the amended complaint, The Pennsylvania Avenue funds alleged, among other things, that we aided and abetted the alleged breach of fiduciary duties by the Avigen directors. Avigen and Pennsylvania Avenue Funds have signed a stipulation of settlement agreement and moved the court for preliminary approval. A case management conference was scheduled for March 8, 2010. We and our directors intend to take all appropriate actions to defend the suit. The Court heard oral argument on the Motion for Preliminary Approval of Settlement and held a case management conference on March 8, 2010, during which it raised a few issues regarding the settlement provisions. On April 6, 2010, the Superior Court for the State of California for the County of Alameda approved the preliminary settlement and set a final settlement hearing for June 24, 2010. Under the terms of the Stipulation of Settlement, Avigen, Inc., a wholly-owned subsidiary of MediciNova, has agreed not to oppose a fee motion by counsel to The Pennsylvania Avenue Funds for fees and expenses in the amount not to exceed \$140,000 and a petition by The Pennsylvania Avenue Funds for an incentive award of up to \$2,500. Under the Order Preliminarily Approving Settlement and Providing for Notice preliminarily certifies a class and states that such class is all persons or entities who held common stock of Avigen, either of record or beneficially, between August 20, 2009, through and including December 18, 2009. Members of the class may request exclusion from the class by June 7, 2010.

MEETINGS AND COMMITTEES OF THE BOARD

Board Meetings and Committees

The Board held five meetings during the year ended December 31, 2009. All of our directors attended at least 75% of the aggregate number of meetings of the Board and of the committees on which such directors serve. We encourage, but do not require, our directors to attend the annual meetings of stockholders. In 2009, Dr. Iwaki and Dr. Dunton were the only directors then serving on the Board to attend the annual meeting.

Independent Directors and Audit Committee

The members of the Audit Committee of the Board each meet the independence standards established by the U.S. Securities and Exchange Commission, or the SEC, and Nasdaq for audit committees. Although each member of the Audit Committee has been selected by the Board based on its determination that the Audit Committee members are fully qualified to monitor the performance of management, the public disclosures by us of our financial condition and results of operations, our internal control over financial reporting and the performance of our independent registered public accounting firm, as well as to analyze and evaluate our financial statements, the Board has determined that none of the members of the Audit Committee qualifies as an “audit committee financial expert” as such term is defined in the rules and regulations of the SEC. The Board has determined that it is appropriate for the Audit Committee not to have an “audit committee financial expert” at this time because our financial statements are not overly complex given the current stage of its development and we do not currently have any revenue. However, the Board believes that Dr. Prendergast, Chairman of the Audit Committee, does fulfill the requirements of Nasdaq’s Marketplace Rule 5605(c)(2), which requires at least one Audit Committee member have past employment experience in finance or accounting that results in the individual’s financial sophistication.

Board Committees and Charters

The Board has three standing committees: the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee. The Nominating Committee determines the composition of these committees. Each member of these committees is an independent director in accordance with the rules and regulations of the SEC and the Nasdaq Marketplace Rules. Each committee is governed by a written charter approved by the Board. A copy of each charter can be found under the Investor Relations-Corporate Governance section of our website at www.medicinova.com. The number of members, names of current members, number of meetings held during the last fiscal year and functions of each committee are set forth below:

Audit Committee

Number of Members: Three

Members: Dr. Prendergast (Chairman)
Ms. Morris
Mr. Shigeta

Number of Meetings: Eight

Functions: The Audit Committee assists the Board in fulfilling its legal and fiduciary obligations in matters involving our accounting, auditing, financial reporting, internal control and legal compliance functions by approving the services performed by our independent registered public accounting firm and reviewing its reports regarding our consolidated financial statements and system of internal accounting control over financial reporting. The Audit Committee is responsible for the appointment, compensation, retention and oversight of our independent registered public accounting firm and for ensuring that such firm is independent of management.

Compensation Committee

Number of Members:

Three

Members:

Dr. Prendergast (Chairman)
Dr. Himawan
Ms. Morris

Number of Meetings:

Five

Functions:

The Compensation Committee determines our general compensation policies and practices. The Compensation Committee also reviews and approves compensation packages for our officers and, based upon such review, recommends overall compensation packages for the officers to the Board. In addition, the Compensation Committee reviews and determines equity-based compensation for our directors, officers, employees and consultants and administers our stock option and employee stock purchase plans.

Nominating and Corporate Governance Committee

Number of Members:

Three

Members:

Dr. Prendergast (Chairman)
Dr. Himawan
Mr. Shigeta

Numbers of Meetings:

Four

Functions:

The Nominating and Corporate Governance Committee is responsible for making recommendations to the Board regarding candidates for directorships and the size and composition of the Board and for overseeing our corporate governance guidelines and reporting and making recommendations to the Board concerning corporate governance matters.

Compensation Committee Interlocks and Insider Participation

Dr. Prendergast has served as a member of the Compensation Committee since such committee was formed in September 2004 in anticipation of our initial public offering. Ms. Morris has served as a member of the Compensation Committee since her election to the Board in 2006. Dr. Himawan has served as a member of the Compensation Committee since January 2010 following the resignation of Mr. Nagao from the Board. No member of the Compensation Committee at any time has been one of our officers or employees. No interlocking relationship exists, or has existed in the past, between the Board or Compensation Committee and the board of directors or compensation committee of any other entity.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We have entered into indemnification agreements with each of our executive officers and directors. In addition, our executive officers and directors are indemnified under the General Corporation Law of the State of Delaware and the Bylaws to the fullest extent permitted under Delaware law. We also have a directors' and officers' liability insurance policy that insures our directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

Our Audit Committee is charged with the responsibility of reviewing certain issues involving potential conflicts of interest, and reviewing and approving all related party transactions, including those required to be disclosed as a "related party" transaction under applicable federal securities laws. Our Audit Committee has not adopted any specific procedures for conducting such reviews and considers each transaction in light of the specific facts and circumstances presented. The Audit Committee has approved the consulting agreement between MediciNova and Danerius, LLC, an affiliate of Alan W. Dunton, one of our directors, dated June 12, 2009, as amended September 23, 2009, pursuant to which Danerius provides consulting services to MediciNova related to its product development programs at a rate of \$27,500 per month. Such consulting agreement will expire October 12, 2011, subject to either party providing written notice of termination or MediciNova terminating the agreement for breach. In 2009, no other transaction requiring disclosure under applicable federal securities laws was submitted to the Audit Committee for approval as a "related party" transaction.

**PROPOSAL TWO:
RATIFICATION OF APPOINTMENT OF
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Dismissal of Ernst & Young LLP

On September 29, 2009, the Audit Committee approved the dismissal of Ernst & Young LLP, or E&Y, as our independent registered public accounting firm. The audit report of E&Y on our consolidated financial statements as of and for the year ended December 31, 2008 did not contain an adverse opinion or a disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles.

The audit report of E&Y on our consolidated financial statements as of and for the year ended December 31, 2007 did not contain an adverse opinion or a disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles, except that the report contained an explanatory paragraph stating that “[a]s discussed in Note 1 to the consolidated financial statements, effective January 1, 2006, we adopted Statement of Financial Accounting Standards No. 123R Share-Based Payment.” The audit report of E&Y on the effectiveness of internal control over financial reporting as of December 31, 2007 did not contain an adverse opinion or disclaimer of opinion, nor was it qualified or modified as to uncertainty, audit scope or accounting principles.

During the two fiscal years ended December 31, 2008 and the subsequent interim period through September 29, 2009, there were no disagreements (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions to Item 304 of Regulation S-K) with E&Y on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of E&Y, would have caused E&Y to make reference to the subject matter of the disagreements in its reports on the Company’s financial statements for such years. During the two fiscal years ended December 31, 2008 and the subsequent interim period through September 29, 2009, there were no reportable events (as defined in Item 304(a)(1)(v) of Regulation S-K). We provided E&Y with a copy of this report and E&Y furnished us with a letter dated October 2, 2009, addressed to the Securities and Exchange Commission, stating it agrees with the statements made above.

Engagement of KPMG LLP

On September 29, 2009, the Audit Committee approved the engagement of KPMG LLP, or KPMG, as our independent registered public accounting firm. The Audit Committee has selected KPMG as our independent registered public accounting firm for the fiscal year ending December 31, 2010. A representative of KPMG is expected to be present at the Annual Meeting to respond to questions and will have the opportunity to make a statement if he or she desires to do so. Although stockholder ratification of our independent registered public accounting firm is not required by the Bylaws or otherwise, we are submitting the selection of KPMG to the stockholders for ratification to permit stockholders to participate in this important corporate decision.

During the years ended December 31, 2007 and 2008 and through September 29, 2009, neither we nor anyone on our behalf consulted with KPMG with respect to (a) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on our consolidated financial statements, and neither a written report was provided to us nor oral advice was provided that KPMG concluded was an important factor considered by us in reaching a decision as to the accounting, auditing or financial reporting issue; or (b) any matter that was either the subject of a disagreement (as defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) or a reportable event (as described in Item 304(a)(1)(v) of Regulation S-K).

Principal Accountant Fees and Services

The following table presents fees for professional audit services paid by us for professional services rendered by E&Y for the fiscal years ended December 31, 2008 and 2009.

	Fiscal Year Ended December 31,	
	2009	2008
Audit Fees (1)	\$ 38,413	\$ 212,992
Tax Fees (2)	3,000	30,357
Other Fees (3)	68,500	10,000
Total	<u>\$ 109,913</u>	<u>\$ 253,349</u>

- (1) Audit fees consisted of fees paid for professional services for the audit of our financial statements and internal controls and services normally provided by independent registered public accounting firms in connection with statutory and regulatory filings or engagements.
- (2) Tax fees consisted of fees paid for professional services for federal, state and international tax compliance.
- (3) Other fees consisted of fees paid for professional services related to registration statements and other miscellaneous services.

The following table presents fees for professional audit services paid by us for professional services rendered by KPMG for the fiscal year ended December 31, 2009.

	Fiscal Year Ended December 31, 2009	
	Audit Fees (1)	\$ 94,000
Total	<u>\$ 94,000</u>	

- (1) Audit fees consisted of fees paid for professional services for the audit of our financial statements and services normally provided by independent registered public accounting firms in connection with statutory and regulatory filings or engagements.

Determination of Independence

The Audit Committee has considered whether the provision of non-audit related services is compatible with maintaining the independence of KPMG LLP and has determined that the provision of such services is compatible with maintaining the independence of our auditors. To date, KPMG LLP has not provided non-audit services to us.

Pre-Approval Policy and Procedures

It is our policy that all audit and non-audit services to be performed by our independent registered public accounting firm be approved in advance by the Audit Committee. The Audit Committee will not approve the engagement of our independent registered public accounting firm to perform any service that such firm would be prohibited from providing under the rules and regulations of the SEC and the applicable Nasdaq Marketplace Rules. In assessing whether to approve use of our independent registered public accounting firm for permitted non-audit services, the Audit Committee tries to minimize relationships that could impair the objectivity of such firm. The Audit Committee will approve permitted non-audit services by our independent registered public accounting firm only when it will be more effective or economical to have such services provided by such firm and where the nature of the services will not impair such firm's independence. During the fiscal years ended December 31, 2008 and 2009, all audit and non-audit services performed by our independent registered public accounting firm were approved in advance by the Audit Committee or the Board.

Required Vote

Ratification will require the affirmative vote of a majority of the shares present and voting at the Annual Meeting in person or by proxy. In the event ratification is not obtained, the Audit Committee will review its future selection of our independent registered public accounting firm but will not be required to select a different independent registered public accounting firm for us.

The Board recommends a vote "FOR" ratification of appointment of KPMG LLP as our independent registered public accounting firm.

EXECUTIVE OFFICERS

The following table sets forth certain information, as of the date of this Proxy Statement, regarding each of our executive officers who is not also currently serving as a director or being nominated to serve as a director.

<u>Name</u>	<u>Position</u>	<u>Age</u>	<u>Principal Business Experience</u>
Shintaro Asako, CPA	Chief Financial Officer	35	<i>Shintaro Asako</i> was appointed as our Chief Financial Officer in November 2006. Mr. Asako served as our Vice President, Accounting and Administration from November 2005 to November 2006. He served as our Vice President, Accounting and Financial Reporting from July 2005 to October 2005. From October 2004 to July 2005, Mr. Asako was an audit senior manager at KPMG LLP, where he provided a variety of audit and business consulting services to multinational clients and industries including pharmaceutical, manufacturing, distribution and freight-forwarding and transportation. Mr. Asako was also responsible for the development and expansion of KPMG's Japanese practice in the Orange County and San Diego areas. Prior to becoming audit senior manager, he held the positions of supervisory senior auditor from June 2002 to March 2003 and audit manager from April 2003 to September 2004. Before joining KPMG, he spent four years with Arthur Andersen LLP providing audit and tax advisory services. Mr. Asako is a graduate of the Leventhal School of Accounting at the University of Southern California. Mr. Asako is a certified public accountant of the state of California and a member of the American Institute of Certified Public Accountants.
Kirk Johnson, Ph.D.	Chief Scientific Officer	50	<i>Kirk Johnson, Ph.D.</i> , joined MediciNova as a consultant in December 2009 and was appointed Chief Scientific Officer effective February 2010. Before joining MediciNova, Dr. Johnson served as Secretary of Avigen from March 2009 to December 2009. Dr. Johnson also held the positions of Vice President, Research and Development from December 2006 to December 2009 and Vice President, Preclinical Development from June 2004 to December 2006. Prior to joining Avigen in January 2004, Dr. Johnson served as Senior Director, Pharmacology & Preclinical Development and a member of the executive management team of Genesoft Pharmaceuticals, Inc. from 2001 to 2004. From 1991 to 2001, Dr. Johnson performed research and development services in both protein and small molecule therapeutics at Chiron Corporation and ultimately served as Director, Pharmacology and Preclinical Research. Dr. Johnson was involved in leading IND-enabling programs, supporting clinical development, and contributing to successful IND and NDA filings at Chiron and Genesoft. In addition to general pharmacology and other preclinical development responsibilities, Dr. Johnson has led research

<u>Name</u>	<u>Position</u>	<u>Age</u>	<u>Principal Business Experience</u>
Masatsune Okajima	Vice President and Head of Japanese Office	42	<p>and clinical development projects for diverse indications including neuropathic pain, hemophilia, antibacterials, diabetes, obesity, acute inflammation and cardiovascular disease. Dr. Johnson has published more than 50 manuscripts and holds four U.S. patents. Dr. Johnson holds a B.S. degree in toxicology from the University of California-Davis and a Ph.D. degree in pharmacology and toxicology from the Medical College of Virginia. He completed postdoctoral fellowships studying the mechanism of action of IL-2 from 1990-1991 at the University of California, Berkeley and from 1986-1989 at Dartmouth College.</p> <p><i>Masatsune Okajima</i> was appointed as our Vice President and Head of Japanese Office in September 2006. Prior to joining us he served as Deputy General Manager at Daiwa Securities SMBC Co., Ltd. since 2002. From 1999 through 2002, Mr. Okajima served as Manager, Daiwa Securities SB Capital Markets Co., Ltd. (now Daiwa Securities SMBC Co., Ltd.). From 1996 to 1999, Mr. Okajima served as Manager, Sumitomo Capital Securities Co., Ltd. and between 1991 and 1996 Mr. Okajima served in various positions at Sumitomo Bank, Ltd. (now Mitsui Sumitomo Bank). Mr. Okajima received a B.S. degree from the Department of Science and Technology, Tokyo Science University.</p>

EXECUTIVE COMPENSATION
Compensation Discussion and Analysis

Overview of Compensation Program

Our compensation program is designed to reward the achievement of corporate and individual objectives. These objectives focus on building a sustainable business that develops differentiated drugs to improve the health and quality of life of patients and creates value for our stockholders. This Compensation Discussion and Analysis provides a narrative overview of our executive compensation philosophy, programs and policies. It is intended to highlight significant information relating to our executive compensation programs and includes analysis of the compensation earned by our executive officers, all of which is qualified by the terms of the employment agreements and other compensation plans and arrangements that we have filed with the SEC. As of December 31, 2009, our executive officers were: Yuichi Iwaki, M.D., Ph.D., President and Chief Executive Officer; Shintaro Asako, CPA, Chief Financial Officer; and Masatsune Okajima, Vice President and Head of Japanese Office. For purposes of this compensation discussion and analysis, we include Richard Gammans, Ph.D., our former Chief Development Officer; and Michael Kalafer, M.D., our former Chief Medical Officer. Dr. Gammans and Dr. Kalafer resigned from their respective positions on June 12, 2009.

The Compensation Committee presently consists of three independent directors. The Compensation Committee is responsible for developing and monitoring compensation arrangements for our executive officers, administering our stock award plans and other compensation plans and performing other activities and functions related to executive compensation as may be assigned from time to time by the Board.

Our compensation program is designed to attract, retain and reward executive officers and other key employees who contribute to our long-term success and to motivate those individuals to enhance long-term stockholder value. It is intended to reward the achievement of specific operating goals from year to year and of strategic goals over several years, and it rewards responses to our business challenges and opportunities which will increase the value of our stock over the long term. The evaluation of whether and to what extent the performance criteria are met by each of the executive officers in any given year is ultimately determined solely by the Compensation Committee.

Compensation Philosophy and Objectives

The Compensation Committee believes that compensation of our executive officers should encourage creation of stockholder value and achievement of strategic corporate objectives. It is the Compensation Committee's philosophy to align the interests of our stockholders and management by integrating compensation with our annual and long-term corporate strategic and financial objectives. Consequently, a significant portion of executive officer compensation is "at risk" and depends upon our corporate performance as well as each individual executive's performance against performance criteria established annually. In addition, to further enhance stockholder value and promote alignment with stockholder interests, our compensation program includes a significant equity-based component. In order to attract and retain the most qualified personnel, we intend to offer a total compensation package competitive with companies in the biotechnology and pharmaceutical industries, taking into account relative company size, performance and geographic location as well as individual responsibilities and performance. We target base salary and overall compensation at the 25th to 75th percentile of companies in our peer group, although individual variances may occur depending on an executive officer's experience, responsibilities and performance. We believe our compensation is competitive with that paid by companies in our peer group.

We generally intend to qualify executive compensation for deductibility without limitation under Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code. Section 162(m) provides that, for purposes of the regular income tax and the alternative minimum tax, the otherwise allowable deduction for compensation paid or accrued with respect to a covered employee of a publicly-held corporation (other than

certain exempt performance-based compensation) is limited to no more than \$1.0 million per year. We do not expect that the non-exempt compensation to be paid to any of its executive officers for fiscal 2010 as calculated for purposes of Section 162(m) will exceed the \$1.0 million annual limit.

Use of Compensation Consultants

In 2008 and 2009, the Compensation Committee engaged Compensia, Inc., or Compensia, to provide third-party data to assist the Compensation Committee in its formulation of compensation strategy for executive officers. Compensia provided reports to the Compensation Committee in 2008 and 2009, each of which outlined data compiled by Compensia. For purposes of our 2009 compensation determinations, our peer company group consisted of 12 biotechnology companies with clinical development programs in at least Phase II development. These 12 companies were: ACADIA Pharmaceuticals Inc.; Anadys Pharmaceuticals, Inc.; AVI BioPharma, Inc.; Cardium Therapeutics, Inc.; Celldex, Inc.; Curis Inc.; MAP Pharmaceuticals, Inc.; NPS Pharmaceuticals, Inc.; Palatin Technologies, Inc.; Telik, Inc.; Threshold Pharmaceuticals, Inc.; and ZIOPHARM Oncology, Inc. The data included comparable base cash compensation, incentive cash compensation and equity awards. While the Compensation Committee did not base its compensation decisions on such report, its 2009 compensation determinations were informed by the data presented by Compensia. The Compensation Committee has the sole authority to establish the nature and scope of engagement of any compensation consultant, to approve the payment of fees to any such consultant and to terminate any consultant's engagement.

Roles of Executives in Establishing Compensation

The Compensation Committee meets regularly to consider all major elements of compensation, including the design and implementation of compensation and benefits programs. Dr. Iwaki and Mr. Asako generally attend Compensation Committee meetings by invitation but are excused for executive sessions. At the Compensation Committee's request, Dr. Iwaki typically makes recommendations to the Compensation Committee concerning the salary, bonus and equity compensation to be granted to our other executive officers. The Compensation Committee may approve, modify or disapprove any of the recommendations made by Dr. Iwaki. The Compensation Committee determines the compensation (including bonus and option grants, if any) of Dr. Iwaki using the same criteria as for the other executive officers.

Elements of Executive Compensation and Employment Agreements

The elements of compensation for executive officers are base salary, annual cash incentives, long-term equity incentives and additional benefits, some of which are available to most other employees, including a 401(k) plan, health and welfare insurance, and life insurance, some of which allocate payments generally based on an individual's level of annual cash compensation. In the case of Mr. Okajima, we pay a benefits adjustment of approximately \$16,700 each year, payable on a monthly basis, and contribute 50% of the premium costs for certain insurance, unemployment, pension and welfare programs, as required by Japanese law. Executive officers have substantial portions of their compensation at risk for annual and long-term performance, with the largest portion at risk for the most senior executive officers. In 2009, we did not provide any material perquisites or personal benefits to our executive officers.

Each of our executive officers is party to an employment agreement that provides for an initial base salary that is subject to annual adjustment in an amount established and approved by the Compensation Committee. Each of these agreements also provides that the executive officer may receive incentive bonuses at the discretion of the Board. Pursuant to these agreements, each executive officer is required to devote his entire business time, attention, energies, skills, learning and best efforts to further our interests and may not engage in any outside activities that compete in any way with our business. Following termination of employment of an executive officer, other than Mr. Okajima, with us, we also have the option to engage such executive officer as a consultant on a quarterly basis. Compensation for each quarter of consulting services would be equal to 15% of the executive officer's annual base salary.

Executive Officer Base Salary

The Compensation Committee reviews salaries recommended by the Chief Executive Officer for executive officers other than the Chief Executive Officer and, based upon such review, approves salaries and bonus payments for such executive officers. The Compensation Committee sets the salary level of each executive officer on a case-by-case basis, taking into account both the individual's level of responsibilities and performance as well as our performance as a whole. The Compensation Committee also considers market information and the base salaries and other incentive compensation paid to executive officers of other similarly sized companies within the drug development sector.

The employment agreement with each executive officer sets an initial annual base salary, which was competitive in our industry given the executive's experience and qualifications at the time we entered into the agreement. The Compensation Committee annually reviews each executive officer's base salary and takes into consideration during this annual review a variety of factors, including:

- individual and corporate performance;
- levels of responsibility;
- prior experience;
- breadth of knowledge of the industry; and
- competitive pay practices in the biotechnology industry.

Based upon this analysis undertaken in January 2010, the Compensation Committee determined to provide merit-based increases in the salaries of our executive officers, effective January 1, 2010, as follows:

- Dr. Iwaki's 2010 base salary is \$490,060, a 3.5% increase from his 2009 base salary.
- Mr. Asako's 2010 base salary is \$285,000, a 17.1% increase from his 2009 base salary.
- Mr. Okajima's 2010 base salary is \$285,000, a 14.6% increase from his 2009 base salary.

In the case of Mr. Asako and Mr. Okajima, a majority of the increase was due to a decision by the Compensation Committee to increase their compensation to the 60th percentile of our peer group based on their performance and significant accomplishments during 2009.

Drs. Gammans and Kalafer resigned from their positions as Chief Development Officer and Chief Medical Officer, respectively, on June 12, 2009. At the time of their resignation Drs. Gammans and Kalafer earned salaries of \$389,685 and \$267,800, respectively. Dr. Kirk Johnson joined us as our Chief Scientific Officer on February 1, 2010 with an annual base salary of \$285,000.

Executive Officer Bonuses

The Compensation Committee believes that a portion of each executive officer's compensation should be contingent upon (i) our performance in meeting corporate and financial objectives and (ii) the individual's contribution to our performance. Bonuses paid related to 2009 performance and were determined on a case-by-case basis. For officers other than the Chief Executive Officer, the Compensation Committee evaluated each executive officer with the Chief Executive Officer to determine the bonus for the fiscal year, which was based on individual and corporate performance, taking into account economic and industry conditions. The Compensation Committee approved the executive officer bonuses in each instance.

In January 2009, the Compensation Committee set the target bonus awards for our individual officers as a percentage of annual base salary. For Dr. Iwaki, the target bonus was set at 50% of base salary; and for Messrs. Asako and Okajima, the target bonus was set at 35% of base salary. In early 2009, the Compensation Committee

established the following corporate objectives for the 2009 fiscal year: (i) entering into a strategic collaboration for MN-166 and monetizing our non-prioritized product candidates; (ii) successfully meeting financial, cash and budgetary goals; and (iii) expediting enrollment of subjects in the ongoing Phase II clinical trial for MN-221 for the treatment of acute exacerbations of asthma. In the case of Mr. Asako and Mr. Okajima, the Compensation Committee also established individual objectives that were related to integral job functions associated with each executive position and critical to implementation of our strategic goals.

These initial goals were challenging to meet and set above our corporate expectations for the 2009 fiscal year. As 2009 progressed, the Board and Compensation Committee directed our executive officers to focus their efforts on execution of our acquisition of Avigen in lieu of the corporate objectives previously established by the Compensation Committee. Completion of the Avigen transaction was considered by the Board and the Compensation Committee to be a challenging goal that presented significant opportunities for our company, including expansion of our MN-166 clinical development program, enhanced liquidity for our Common Stock and a potential fundraising through conversion of the convertible notes issued as part of the merger consideration. In January 2010, the Compensation Committee held extensive discussions regarding our corporate achievements during 2009, focusing on completion of the Avigen transaction and its positive benefits for our company, including our expanded MN-166 clinical development program, the enhanced liquidity for our Common Stock, the potential fundraising opportunity represented by the \$29.4 million of convertible notes issued as part of the merger consideration and the substantial increase in the trading prices of our Common Stock. Based on these discussions and acknowledging the significant achievements of our executive officers in completing the Avigen transaction, the Compensation Committee determined to award cash bonuses in the following amounts:

- Dr. Iwaki was awarded a bonus of \$236,745.
- Mr. Asako and Mr. Okajima were each awarded a bonus of \$100,000.

Drs. Gammans and Kalafer were not entitled to receive any receive any cash bonuses for the fiscal year ended December 31, 2009.

Our corporate objectives for fiscal 2010 include successfully meeting financial, cash and budgetary goals, entering into a strategic collaboration for MN-166/AV411 and MN-221 and implementing a full time business development function. Dr. Iwaki's individual objectives for fiscal 2010 are the same as our corporate objectives. In the case of Messrs. Asako and Okajima as well as Dr. Kirk Johnson, our Chief Scientific Officer, our corporate objectives have 75% weight and his individual objectives have 25% weight in determining bonus eligibility for fiscal 2010. The Compensation Committee will evaluate corporate and individual achievement of the objectives during fiscal 2010 in early 2011 and will determine bonus amounts, if any, based upon such evaluation.

Stock Awards

The Compensation Committee administers our Amended and Restated 2004 Stock Incentive Plan, or the 2004 Plan, for executive officers, employees, consultants and non-employee directors, under which it grants stock awards. The Compensation Committee believes that providing executive officers who have responsibility for our management and growth with an opportunity to increase their ownership of our stock better aligns the interests of our executive officers with those of our stockholders and promotes retention of key personnel, which is also in the best interest of our stockholders. Accordingly, the Compensation Committee, when reviewing executive officer compensation, also considers stock awards as appropriate. At its discretion, the Compensation Committee may also grant stock awards based on individual and corporate achievements from time to time. Grants made to the Chief Executive Officer and other executive officers are approved by the Compensation Committee and then, in certain cases, recommended for approval by the Compensation Committee to the entire Board. The Compensation Committee determines the number of shares of our Common Stock underlying each stock award based upon the executive officer's and our corporate performance, the executive officer's role and

responsibilities, the executive officer's base salary and comparisons with comparable awards to and target equity participation for individuals in similar positions in the industry, the executive officer's prior stock awards and exercise price of outstanding awards, if any, and the overall level of outstanding stock awards as a percentage of total shares outstanding. No restricted stock or stock unit awards were made to our executive officers in 2009.

Stock Options

The Compensation Committee believes that total executive compensation should include a mix of short-term and long-term incentives. Stock options granted in fiscal year 2009 vest monthly over a 48-month period commencing on the date of grant. In general, vested stock options may be exercised within ten years from the date the stock options were granted.

Upon a participant's termination of employment with MediciNova, stock option awards remain exercisable only in accordance with the following provisions:

- Upon termination by reason of death or disability, any vested stock options remain exercisable for twelve months after the date of termination; and
- Upon termination for any reason other than death or disability, any vested stock options remain exercisable for three months after the date of termination.

The Compensation Committee awarded stock options to our executive officers in January 2009 in the following amounts: Dr. Iwaki: an option to purchase 97,500 shares of Common Stock; Mr. Asako: an option to purchase 60,000 shares of Common Stock; Mr. Okajima: an option to purchase 41,250 shares of Common Stock; Dr. Gammans: an option to purchase 60,000 shares of Common Stock; and Dr. Kalafer: an option to purchase 41,250 shares of Common Stock. The total value of stock options granted to the executive officers in 2009 was based on our Chief Executive Officer's recommendations and the Compensation Committee's own assessment of each individual's performance and experience. None of our current executive officers exercised any of his vested stock options in 2009. Dr. Gammans and Kalafer resigned on June 12, 2009, and accordingly, their unvested stock options expired at such time and their vested but unexercised stock options expired on September 12, 2009. Prior to the expiration of their stock options on September 12, 2009, Dr. Gammans exercised 39,050 stock options and Dr. Kalafer exercised 26,460 stock options.

Severance Protection Agreements

In June 2007, the Compensation Committee, in an effort to retain key executive officers notwithstanding a change of control of us, recommended to the Board consideration of severance protection agreements, whereby the executive officers would be paid specified amounts and receive continued benefits if they were to be terminated following a change of control transaction or were to have their responsibilities and authority materially diminished following a change of control. The form of the severance protection agreement, or the Severance Protection Agreement, was approved by the Board of Directors in September 2007, and its material terms are described in this Proxy Statement under the caption "Summary of Potential Payments Upon Termination or Change of Control." Each of our executive officers is a party to a Severance Protection Agreement.

The Compensation Committee did not consider the existence of the Severance Protection Agreements in determining salary or bonus or equity awards for fiscal 2009.

SUMMARY COMPENSATION TABLE

The following table summarizes all compensation for all services rendered in all capacities to us during each of the fiscal years ended December 31, 2009, December 31, 2008 and December 31, 2007 earned by each of our current executive officers and Drs. Gammans and Kalafer during fiscal year 2009.

Name and Position	Year	Salary (\$)	Bonus (\$)	Option Awards (\$ (1))	Non-Equity Incentive Plan Compensation (\$)	All Other Compensation (\$)	Total (\$)
Yuichi Iwaki, M.D., Ph.D. (2). President and Chief Executive Officer	2009	473,488	—	113,100	236,745	14,700(3)	838,033
	2008	464,205	—	309,400	139,261	13,800(4)	926,666
	2007	452,000	90,400(19)	—	—	54,467(5)	596,867
Shintaro Asako, CPA (6) Chief Financial Officer	2009	243,296	—	69,600	100,000	14,700(7)	427,596
	2008	236,210	—	176,120	50,224	13,800(8)	476,354
	2007	230,000	40,250(19)	—	—	32,943(9)	303,193
Masatsune Okajima (10) Vice President and Head of Japanese Office	2009	248,585	—	47,850	100,000	16,713(11)	413,148
	2008	241,345	—	114,240	45,755	17,040(11)	418,380
	2007	235,000	32,900(19)	—	—	19,676(11)	287,576
Richard Gammans, Ph.D. (12) Former Chief Development Officer	2009	177,107	—	69,600	—	409,772(13)	656,479
	2008	382,045	—	228,480	80,802	13,800(14)	705,127
	2007	297,000	52,080(19)	—	—	113,368(15)	462,718
Michael Kalafer, M.D. (12)(16) Former Chief Medical Officer	2009	121,712	—	47,850	—	240,567(17)	410,129
	2008	260,000	—	168,514(20)	51,756	13,800(18)	494,070

- (1) Amounts in the Option Awards column reflect the grant date fair value as calculated in accordance with the Financial Accounting Standards Board's Accounting Standards Codification Topic 718 (formerly known as FAS 123R and referred to here as ASC 718). See Note 1, "The Company, Basis of Presentation and Summary of Significant Accounting Policies—Stock Based Compensation," in the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2009 for the relevant assumptions used to determine the valuation of awards. There were no stock option grants to executive officers in the 2007 fiscal year.
- (2) Dr. Iwaki is being paid salary at an annual rate of \$490,060 in 2010.
- (3) Includes 401(k) employer matching contributions (\$14,700). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.
- (4) Includes 401(k) employer matching contributions (\$13,800). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.
- (5) Includes long-term disability (\$1,176), 401(k) employer matching contributions (\$13,500), health insurance premiums (\$27,847) and a car allowance (\$11,944, gross-up).
- (6) Mr. Asako is being paid salary at an annual rate of \$285,000 in 2010.
- (7) Includes 401(k) employer matching contributions (\$14,700). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.
- (8) Includes 401(k) employer matching contributions (\$13,800). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.
- (9) Includes long-term disability paid (\$1,176), health insurance premiums (\$18,267) and 401(k) employer matching contributions (\$13,500).
- (10) Mr. Okajima is being paid salary at an annual rate of \$285,000 in 2010.
- (11) Includes a Japanese benefits adjustment as stipulated in Mr. Okajima's employment agreement.
- (12) Dr. Gammans and Dr. Kalafer resigned from their positions as Chief Development Officer and Chief Medical Officer, respectively, on June 12, 2009.
- (13) Includes amounts paid in connection with Dr. Gammans' resignation on June 12, 2009 (\$400,025) and 401(k) employer matching contributions (\$9,747). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.
- (14) Includes 401(k) employer matching contributions (\$13,800). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.
- (15) Includes long-term disability (\$1,176), 401(k) employer matching contributions (\$13,500), health insurance premiums (\$23,962) and a housing allowance (\$75,000, gross-up).
- (16) Dr. Kalafer was promoted to Chief Medical Officer effective July 3, 2008.
- (17) Includes amounts paid in connection with Dr. Kalafer's resignation on June 12, 2009 (\$232,978) and 401(k) employer matching contributions (\$7,589). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.

- (18) Includes 401(k) employer matching contributions (\$13,800). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.
- (19) The bonus payment related to performance for fiscal year ended December 31, 2007 was made in 2007.
- (20) Includes options granted in 2008 prior to Dr. Kalafer's promotion to Chief Medical Officer.

GRANTS OF PLAN BASED AWARDS

The following table discloses grants of stock awards during the fiscal year ended December 31, 2009 for each of our current executive officers and Drs. Gammans and Kalafer.

Name and Position	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plans Awards			All Other Option Awards: Number of Securities Underlying Options #	Exercise or Base Price of Option Awards \$/Sh. (1)	Grant Date Fair Value of Option Awards (2) (\$)
		Threshold \$	Target \$	Maximum \$			
Yuichi Iwaki, M.D., Ph.D. President and Chief Executive Officer	1/30/2009 —	— —	— 236,745	— —	97,500 —	2.20 —	113,100 —
Shintaro Asako, CPA. Chief Financial Officer	1/30/2009 —	— —	— 85,154	— —	60,000 —	2.20 —	69,600 —
Masatsune Okajima Vice President and Head of Japanese Office	1/30/2009 —	— —	— 87,005	— —	41,250 —	2.20 —	47,850 —
Richard E. Gammans, Ph.D. (3) Former Chief Development Officer	1/30/2009	—	—	—	60,000	2.20	69,600
Michael Kalafer, M.D. (3) Former Chief Medical Officer	1/30/2009	—	—	—	41,250	2.20	47,850

- (1) The exercise price of the stock option awards is either equal to or greater than the grant date's closing price, or the prior day's closing price if the grant date fell over the weekend, as reported by Nasdaq.
- (2) Refer to Note 1, "The Company, Basis of Presentation and Summary of Significant Accounting Policies—Stock Based Compensation," in the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2009 for the relevant assumptions used to determine the valuation of awards.
- (3) Dr. Gammans and Dr. Kalafer resigned from their positions as Chief Development Officer and Chief Medical Officer, respectively, on June 12, 2009. Unvested options held by such individuals were forfeited concurrently with such resignations, and all vested options held by such individuals expired on September 12, 2009.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END

The following table discloses outstanding stock awards classified as exercisable and unexercisable as of December 31, 2009 for each of our executive officers. There were no unvested stock awards as of December 31, 2009.

	Option Awards			
	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price (\$/Sh.) (1)	Option Expiration Date
Yuichi Iwaki, M.D., Ph.D. President and Chief Executive Officer	39,167	833	11.60	1/4/2016(2)
	1,000	—	13.36	5/11/2016(3)
	18,125	1,875	11.48	7/9/2016(4)
	257,075	76,428	9.73	11/12/2016(2)
	62,288	67,712	4.42	1/6/2018(2)
	22,344	75,156	2.20	1/29/2019(2)
Shintaro Asako, CPA Chief Financial Officer	10,000	—	13.80	12/12/2015(5)
	15,000	—	23.40	11/12/2015(2)
	25,000	—	33.10	11/12/2015(2)
	14,687	313	11.60	1/4/2016(2)
	96,400	28,664	9.73	11/12/2016(2)
	35,454	38,546	4.42	1/6/2018(2)
	13,748	46,252	2.20	1/29/2019(2)
Masatsune Okajima Vice President and Head of Japanese Office	10,000	—	11.26	8/1/2016(6)
	12,189	2,811	22.60	9/1/2016(2)
	20,313	4,687	34.12	9/1/2016(2)
	96,404	28,660	9.73	11/12/2016(2)
	23,000	25,000	4.42	1/6/2018(2)
	9,454	31,796	2.20	1/29/2019(2)
Richard Gammans, Ph.D. (7) Former Chief Development Officer	—	—	—	—
Michael Kalafer, M.D. (7) Former Chief Medical Officer	—	—	—	—

- (1) See Note 1, “The Company, Basis of Presentation and Summary of Significant Accounting Policies—Stock Based Compensation,” in the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2009 for the relevant assumptions used to determine the valuation of these stock option awards. The exercise price of the stock option awards is either equal to or greater than the grant date’s closing price, or the prior day’s closing price if the grant date fell over the weekend, as reported by the Hercules Market of the Osaka Securities Exchange, converted to U.S. dollars based on the respective dates exchange rate per www.Oanda.com or Nasdaq.
- (2) These grants vest in equal monthly installments over four years from the vesting commencement date, which was the date of grant.
- (3) This grant fully vests after six months from the vesting commencement date, which was the date of grant.
- (4) This grant vested 10,000 shares upon the date of grant, with 1/16 of the remaining shares vesting per quarter.
- (5) These grants vested immediately upon date of grant.
- (6) This grant vests in equal monthly installments over six months from the vesting commencement date, which was the date of grant.
- (7) Dr. Gammans and Dr. Kalafer resigned from their positions as Chief Development Officer and Chief Medical Officer, respectively, on June 12, 2009. Unvested options held by such individuals were forfeited concurrently with such resignations, and all vested options held by such individuals expired on September 12, 2009.

OPTION EXERCISES AND STOCK VESTED

The following table discloses stock awards exercised by our current executive officers and Drs. Gammans and Kalafer as of December 31, 2009.

	Option Awards	
	Number of Securities Acquired on Exercise (#)	Value Realized on Exercise (\$)
Yuichi Iwaki, M.D., Ph.D. President and Chief Executive Officer	—	—
Shintaro Asako, CPA Chief Financial Officer	—	—
Masatsune Okajima Vice President and Head of Japanese Office	—	—
Richard Gammans, Ph.D. (1) Former Chief Development Officer	34,000 5,050	\$ 79,951 \$ 19,832
Michael Kalafer, M.D. (1) Former Chief Medical Officer	19,586 3,437 3,437	\$ 32,888 \$ 6,187 \$ 14,195

(1) Drs. Gammans and Kalafer resigned on June 12, 2009, and accordingly, their vested stock options expired on September 12, 2009. Prior to the expiration of their stock options on September 12, 2009, Dr. Gammans exercised 39,050 stock options and Dr. Kalafer exercised 26,460 stock options.

SUMMARY OF POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

Severance Protection Agreements

Our Severance Protection Agreements were established to provide our executive officers with certain payments upon a change of control. The following summary of the material provisions of the Severance Protection Agreements is qualified in its entirety by reference to the actual agreements. Our Severance Protection Agreements are structured on a “double-trigger” basis meaning that in order for an executive officer to receive a change in control payment, there must be a change in control and within 365 days after the change in control the executive officer’s employment must be terminated without “cause” or the executive officer must resign for “good reason.” If these events occur, then, pursuant to the Severance Protection Agreement, the executive is entitled to receive the following benefits:

- a lump sum severance payment equal to two times the sum of the executive officer’s base salary amount and applicable bonus amount;
- a pro rata bonus computed based on certain prior bonus payments;
- continued life insurance and medical coverage for a period of up to 24 months and outplacement services for a period of up to 12 months; and
- acceleration of vesting and other benefits regarding options to purchase our Common Stock or other equity compensation awards provided to the executive officer in any plans or agreements.

The Severance Protection Agreements define “change in control” as:

- an acquisition of 40% or more of our voting securities by any person;
- a change in a majority of the members of the Board;
- a merger, substantial asset sale or similar transaction resulting in current stockholders owning 50% or less of the common stock and voting securities of the corporation or entity resulting from such transaction; or
- approval by our stockholders of our complete liquidation or dissolution.

Employment Agreements

Under the terms of the employment agreements with our current executive officers (other than Mr. Okajima), either party may terminate the agreement at any time upon three months’ notice. In lieu of three months’ notice, we may instead (at our election) provide the executive officer with a lump sum payment equal to 75% of his annual base compensation, in the case of Dr. Iwaki, and 50% of his annual base compensation, in the case of Mr. Asako. Under Japanese law, we must provide Mr. Okajima at least 30 days’ prior dismissal notice or 30 days’ pay in lieu thereof or a combination of such notice and pay requirements. In the event of termination of Mr. Okajima’s at-will employment by us (other than for cause), we will provide six months of severance to Mr. Okajima.

The employment agreements provide that the executive officers may not disclose our confidential and proprietary information and must assign to us any inventions or other proprietary information discovered during their employment with us.

The following table reflects potential benefits or change in control payments to our executive officers if they were terminated on December 31, 2009. If the amount of these payments would cause an executive to become subject to the “golden parachute” excise tax imposed under Section 4999 of the Code, the change in control payments will be reduced so that the executive is not subject to an excise tax.

<u>Name</u>	<u>Termination for Cause (1)</u>	<u>Change in Control and Involuntary Termination or Voluntary Termination for Good Reason (2)</u>	<u>Voluntary Termination and Election by MediciNova, Inc. to Waive Required Notice Period</u>
Yuichi Iwaki, M.D., Ph.D.			
Severance Pay	—	\$ 1,086,237(3)	\$ 355,116(4)
Pro Rata Bonus	—	\$ 139,261	—
Medical and Outplacement Benefits (5)	—	\$ 59,619	—
Acceleration of Equity Awards (6)	—	\$ 541,160	—
Shintaro Asako, CPA			
Severance Pay	—	\$ 536,816(3)	\$ 121,648(7)
Pro Rata Bonus	—	\$ 50,224	—
Medical and Outplacement Benefits (5)	—	\$ 35,085	—
Acceleration of Equity Awards (6)	—	\$ 324,850	—
Masatsune Okajima			
Severance Pay	—	\$ 542,925(3)	\$ 124,293(8)
Pro Rata Bonus	—	\$ 45,755	—
Medical and Outplacement Benefits (9)	—	\$ 33,426	—
Acceleration of Equity Awards (6)	—	\$ 219,393	—

- (1) Under the Severance Protection Agreements, “cause” is defined to include: the executive officer’s conviction of a felony or any crime involving fraud, embezzlement or theft; willful engagement in illegal conduct or gross misconduct that is significantly injurious to us; or failure to perform his duties in a reasonably satisfactory manner after receipt of a notice from us detailing such failure.
- (2) Under the Severance Protection Agreements, “good reason” is defined to include: a material adverse change in status, position, responsibilities, including reporting responsibilities, or in base salary; a relocation of the place of principal employment by more than 50 miles; or any material breach by us of any provision of any agreement to which we and the applicable executive officer are parties.
- (3) Equals two times the executive officer’s annual base salary and applicable bonus amount.
- (4) This severance pay is payable, at our election, if we decide to waive the three-month notice provision required for termination under the employment agreement and shall equal 75% of the executive officer’s base salary.
- (5) The value of medical benefits is estimated based on the premium each executive officer would be required to pay for 24 months of continuing medical coverage under the provisions of our medical plan required by the Consolidated Omnibus Budget Reconciliation Act (COBRA).
- (6) The \$7.04 closing price of our common stock on December 31, 2009 exceeded the \$4.42 exercise price of our stock option awards issued on January 6, 2008 and the \$2.20 exercise price of our stock option awards issued on January 29, 2009. We have computed the value of the acceleration of equity awards based on the sum of the difference between the closing price of our common stock on December 31, 2009 and the exercise price of each in-the-money stock option that would have been accelerated upon termination of an executive officer’s employment on December 31, 2009.
- (7) This severance pay is payable, at our election, if we decide to waive the three-month notice provision required for termination under the employment agreements and shall equal 50% of the executive officer’s annual base salary.
- (8) This severance pay is payable, at our election, if we decide to terminate Mr. Okajima’s employment other than for cause and shall equal six months of his annual base salary.
- (9) Equals two times Mr. Okajima’s annual Japanese benefits adjustment.

Drs. Gammans and Kalafer resigned from their positions as Chief Development Officer and Chief Medical Officer, respectively, on June 12, 2009. Dr. Gammans entered into a Separation Agreement and Release, dated June 26, 2009, with us that, subject to the terms and conditions thereof, provides for the lump sum payments to Dr. Gammans of (a) \$292,263.75, which equals the salary that he would have received through March 12, 2010, and (b) \$4,000.00 to help defray certain lease and relocation costs. Dr. Kalafer entered into a Separation Agreement and Release dated July 12, 2009 with us that, subject to the terms and conditions thereof, provides for the lump sum payment to Dr. Kalafer of \$133,900.00, which equals the salary that he would have received through December 12, 2009. In addition, through March 12, 2010, we paid the applicable health insurance premiums to continue medical benefits in the same manner that such benefits were in effect immediately prior to their respective resignations.

DIRECTOR COMPENSATION

We compensate non-employee directors for their service on the Board. Each non-employee director is eligible to receive the following fees related to their service on the Board:

- an initial fee of \$20,000 upon first becoming a member of the Board; and
- annual cash compensation of \$40,000, payable in equal quarterly installments in arrears.

We pay the Chairman of the Audit Committee of the Board further annual cash compensation of \$20,000. In addition, we reimburse our directors for reasonable expenses incurred in connection with attendance at Board and committee meetings.

Our non-employee directors receive nondiscretionary, automatic grants of nonstatutory stock options. A non-employee director is automatically granted an initial option to purchase 1,000 shares of Common Stock upon first becoming a member of the Board. The initial stock option is fully vested at the time of grant. Immediately after each of our regularly scheduled annual meetings of stockholders, each non-employee director is automatically granted a nonstatutory stock option to purchase 1,000 shares of Common Stock, provided the director has served on the Board for at least six months. Each annual stock option vests and becomes fully exercisable on the date which is six months after the date of the grant. The stock options granted to non-employee directors have a per share exercise price equal to 100% of the fair market value of the underlying shares on the date of grant and become fully vested if we are subject to a change of control.

In January 2006, each non-employee, non-consultant director was granted a one-time stock option to purchase 20,000 shares of our Common Stock at 100% of the fair market value of the underlying shares on the date of grant. These stock options were immediately vested as to 10,000 shares, and the remaining 10,000 shares vested quarterly over the subsequent four years.

The following table sets forth compensation information with respect to all of our non-employee directors for amounts earned during the year ended December 31, 2009.

<u>Name (1)</u>	<u>Fees Paid in Cash (\$)</u>	<u>Option Awards (\$) (2)</u>	<u>Total (\$)</u>
Alan W. Dunton, M.D.	\$40,000	\$1,660	\$41,660
Jeff Himawan, Ph.D.	\$ — (3)	\$1,660	\$ 1,660
Arlene Morris	\$40,000	\$1,660	\$41,660
Hideki Nagao (4)	\$40,000	\$1,660	\$41,660
John Prendergast, Ph.D.	\$60,000	\$1,660	\$41,660
Hiroaki Shigeta (5)	\$20,000	\$3,641	\$23,641
Daniel Vapnek, Ph.D. (6)	\$20,000	—	\$20,000

(1) Dr. Iwaki has been omitted from the table, as he is an employee and receives no compensation for serving on the Board.

(2) Amounts in the Option Awards column reflect the grant date fair value as calculated in accordance with the Financial Accounting Standards Board's Accounting Standards Codification Topic 718 (formerly known as FAS 123R and referred to here as ASC 718). Refer to Note 1, "The Company, Basis of Presentation and Summary of Significant Accounting Policies—Stock Based Compensation," in the Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2009 for the relevant assumptions used to determine the valuation of our awards. In fiscal year 2009, each non-employee director (other than Daniel Vapnek, who did not seek re-election at the June 11, 2009 Annual Meeting) was granted a stock option to purchase 1,000 shares of Common Stock, for a total grant date fair value of all stock options awarded to our non-employee directors, including Mr. Nagao, of \$11,941.30.

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- (3) Dr. Himawan requested in the fourth quarter of fiscal year 2007 to discontinue receiving cash compensation for serving on the Board.
 - (4) Mr. Nagao resigned from the Board effective January 12, 2010.
 - (5) Mr. Shigeta was elected to the Board effective September 14, 2009.
 - (6) Dr. Vapnek did not seek re-election at the June 11, 2009 Annual Meeting and accordingly, his term as director ended at the Annual Meeting.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information as of April 26, 2010 as to shares of Common Stock beneficially owned by: (i) each person who is known by us to own beneficially more than 5% of the Common Stock, (ii) each of our directors, (iii) each of our executive officers named under the “Summary Compensation Table,” and (iv) all of our directors and executive officers as a group. Ownership information is based upon information furnished by the respective individuals or entities, as the case may be. The percentage of Common Stock beneficially owned is based on 12,380,497 shares outstanding as of April 26, 2010. In addition, shares issuable pursuant to stock options and warrants which may be exercised within 60 days of April 26, 2010 are deemed to be issued and outstanding and have been treated as outstanding in calculating the percentage ownership of those individuals possessing such interest, but not for any other individual.

<u>Name and Address of Beneficial Owner (1)</u>	<u>Number of Shares of Common Stock Beneficially Owned</u>	<u>Percentage of Common Stock Beneficially Owned</u>
5% Stockholders:		
Biotechnology Value Fund, L.P. (2)	1,455,610	11.8%
Essex Woodland Health Ventures Fund VI, L.P. (3)	1,214,370	9.8%
Burlingame Asset Management, LLC (4)	1,054,881	8.5%
Southpaw Asset Management L.P. (5)	934,525	7.5%
Directors and Executive Officers:		
Yuichi Iwaki, M.D., Ph.D. (6)	1,119,027	9.0%
Alan W. Dunton, M.D. (7)	34,000	*
Jeff Himawan, Ph.D. (8)	1,214,370	9.8%
Arlene Morris (9)	34,000	*
John K.A. Prendergast, Ph.D. (9)	46,000	*
Hiroaki Shigeta (10)	1,000	*
Shintaro Asako, CPA (11)	262,421	2.1%
Masatsune Okajima (12)	223,175	1.8%
Richard E. Gammans, Ph.D. (13)	—	—
Michael Kalafer, M.D. (14)	—	—
All directors and executive officers as a group (10 persons) (15)	2,933,993	23.7%

* Amount represents less than 1% of the outstanding shares of our Common Stock.

- (1) Unless otherwise noted, the address of each beneficial owner listed in the table is c/o MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122. Except as indicated by footnote, and subject to community property laws where applicable, the beneficial owner has sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by them.
- (2) Based upon a Schedule 13G filed with the SEC on December 24, 2009 by Biotechnology Value Fund, L.P. and includes shares owned by the following affiliated entities: (a) Biotechnology Value Fund, L.P. 325,414 shares; (b) Biotechnology Value Fund II, L.P. 224,859 shares; (c) BVF Investments, L.L.C. 821,233 shares; and (d) Investment 10, L.L.C. 84,102 shares. BVF Partners L.P., BVF Inc. and Mark N. Lampert beneficially own an aggregate of 1,455,610 shares. The principal business address for Biotechnology Value Fund, L.P. is 900 North Michigan Avenue, Suite 1100, Chicago, Illinois 60611.
- (3) Based upon a Schedule 13D filed with the SEC on February 13, 2006 and subsequent Form 4s filed by Dr. Himawan. Reflects 1,170,370 shares owned by Essex Woodland Health Ventures Fund VI, L.P., and 44,000 shares subject to stock options exercisable within 60 days of April 26, 2010. The principal business address for Essex Woodlands Health Ventures Fund VI, L.P. is 335 Bryant Street, 3rd Floor, Palo Alto, California 94301. We have been advised by Essex Woodlands Health Ventures, general partner of Essex Woodlands Health Ventures Fund VI, L.P., that up to 12 persons who are partners of Essex Woodlands Health Ventures have voting and investment power over shares held by Essex Woodlands Health Ventures Fund VI, L.P. At least a majority of those voting is required for an investment decision, and in practice the decisions are almost always made pursuant to a unanimous vote.

- (4) Based upon a Schedule 13G/A filed with the SEC on February 16, 2010 by Burlingame Asset Management, LLC and includes shares owned by the following affiliated entities: (a) Burlingame Equity Investors, LP 468,385 shares; (b) Burlingame Equity Investors II, LP 54,628 shares; (c) Burlingame Equity Investors (Offshore) Ltd. 84,533 shares and (d) Burlingame Special Opportunities III, LP 447,336 shares. Burlingame Asset Management, LLC and Blair E. Sanford beneficially own an aggregate of 1,054,881 shares. The principal business address for Burlingame Asset Management, LLC is One Market Street, Spear Street Tower, Suite 3750, San Francisco, California 94105.
- (5) Based upon a Schedule 13G filed with the SEC on December 28, 2009 by Southpaw Asset Management LP and includes shares owned by the following affiliated entities: (a) Southpaw Credit Opportunity Master Fund LP 853,272 shares; and (b) two managed accounts 81,253 shares. Southpaw Asset Management LP, Southpaw Holdings LLC, Mr. Kevin Wyman and Mr. Howard Golden beneficially own an aggregate of 934,525 shares. The principal business address for Southpaw Asset Management LP is Four Greenwich Office Park, Greenwich, Connecticut 06831.
- (6) Includes 643,972 shares held by Dr. Iwaki and 475,055 shares subject to stock options exercisable within 60 days of April 26, 2010.
- (7) Reflects shares subject to stock options exercisable within 60 days of April 26, 2010. Dr. Dunton has named Danerius, LLC as the designee to receive any stock options Dr. Dunton receives in his capacity as director. Dr. Dunton disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.
- (8) Reflects 1,170,370 shares owned by Essex Woodland Health Ventures Fund VI, L.P., of which Dr. Himawan serves as Managing Director and 44,000 shares subject to stock options exercisable within 60 days of April 26, 2010. Dr. Himawan has named Essex Woodlands Health Ventures as the designee to receive any stock options Dr. Himawan receives in his capacity as director. Dr. Himawan disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.
- (9) Reflects shares subject to stock options exercisable within 60 days of April 26, 2010.
- (10) Mr. Shigeta joined our board of directors on September 14, 2009, at which time he was automatically granted an option to purchase 1,000 shares that was fully vested at the time of grant.
- (11) Includes 17,707 shares held by Mr. Asako and 244,714 shares subject to stock options exercisable within 60 days of April 26, 2010.
- (12) Includes 17,908 shares held by Mr. Okajima and 205,267 shares subject to stock options exercisable within 60 days of April 26, 2010.
- (13) Dr. Gammans terminated his employment with MediciNova in June 2009. All shares owned have been sold and no vested stock options remain outstanding.
- (14) Dr. Kalafer terminated his employment with MediciNova in June 2009. All shares owned have been sold and no vested stock options remain outstanding.
- (15) Includes 1,849,957 shares held of record and 1,084,036 shares subject to stock options that are exercisable within 60 days of April 26, 2010. In addition, Kirk Johnson, Ph.D., our Chief Scientific Officer, holds options to purchase 8,332 shares, which options may be exercised within 60 days of April 26, 2010.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD

The Audit Committee operates under a written charter adopted by the Board of Directors (the "Board") on September 28, 2004. A copy of the Audit Committee Charter is available on our web site at www.medicinova.com. The members of the Audit Committee are John K.A. Prendergast, Ph.D. (Chairman), Arlene Morris and Hiroaki Shigeta, each of whom meets the independence standards of the Nasdaq Marketplace Rules and the rules and regulations of the SEC.

The Audit Committee oversees our financial reporting process on behalf of the Board and is responsible for providing independent, objective oversight of our accounting, auditing, financial reporting, internal control and legal compliance functions. It is not the duty of the Audit Committee to plan or conduct audits or to determine that our financial statements are complete and accurate and are in accordance with generally accepted accounting principles. Management is responsible for our financial statements and the reporting process, including the system of internal controls. The independent registered public accounting firm is responsible in its report for expressing an opinion on the conformity of those financial statements with generally accepted accounting principles.

The Audit Committee has reviewed and discussed our audited financial statements contained in the Annual Report on Form 10-K for the year ended December 31, 2009 with our management and its independent registered public accounting firm. The Audit Committee met privately with the independent registered public accounting firm and discussed issues deemed significant by such firm, including those matters required by Statements of Auditing Standards No. 61, Communication with Audit Committees, as amended. In addition, the Audit Committee has received the written disclosures from our independent registered public accounting firm required by PCAOB Rule 3526 (formerly Independence Standards Board Standard No. 1) and discussed with such firm its independence from us. KPMG advised the Audit Committee that KPMG was and continues to be independent accountants with respect to the Company.

Based upon the reviews and discussions outlined above, the Audit Committee recommended to the Board that the audited financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2009 for filing with the Securities and Exchange Commission.

Audit Committee

John K.A. Prendergast, Ph.D. (Chairman)
Arlene Morris
Hiroaki Shigeta

OTHER MATTERS

We know of no other business that will be presented at the Annual Meeting. If any other business is properly brought before the Annual Meeting, it is intended that proxies in the enclosed form will be voted in accordance with the judgment of the persons voting the proxies.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Under Section 16(a) of the Exchange Act, our directors, executive officers and beneficial holders of more than 10% of our Common Stock are required to report their initial ownership of the Common Stock and any subsequent change in that ownership to the SEC. Specific due dates for these reports have been established, and we are required to identify those persons who failed to timely file these reports. To our knowledge, based solely on a review of such reports furnished to us and written representations that no other reports were required during the fiscal year ended December 31, 2009, all Section 16(a) filing requirements applicable to our officers, directors and 10% stockholders were satisfied.

STOCKHOLDER PROPOSALS FOR THE 2011 ANNUAL MEETING

Any of our stockholders may propose business to be brought before our 2011 Annual Meeting of Stockholders. Proposals of our stockholders that are intended to be presented by such stockholders at our 2011 Annual Meeting of Stockholders must be received by our Secretary no later than January 8, 2011 in order that they may be included in our proxy statement and form of proxy relating to such meeting.

A stockholder proposal not included in our proxy statement for the 2011 Annual Meeting of Stockholders will be ineligible for presentation at the meeting unless the stockholder gives timely notice of the proposal in writing to our Secretary at our principal executive officers and otherwise complies with the provisions of our Bylaws. To be timely, the Bylaws provide that we must have received the stockholder's notice not less than 90 days nor more than 120 days in advance of the anniversary of the date this Proxy Statement was released to stockholders in connection with the Annual Meeting. Stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act and intended to be presented at our 2011 Annual Meeting of Stockholders, must be received by our Secretary no later than January 8, 2010 (120 days before the anniversary of the date on which we first mailed our proxy materials for the Annual Meeting) in order to be considered for inclusion in our proxy materials for that meeting. However, if the date of the 2010 Annual Meeting of Stockholders is changed by more than 30 days from the date contemplated at the time of this Proxy Statement, we must receive the stockholder's notice not later than the close of business on the later of (i) the 90th day prior to such annual meeting and (ii) the seventh day following the day on which public announcement of the date of such meeting is first made.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

A number of brokers with account holders who are our stockholders will be "householding" our proxy materials. A single Proxy Statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate Proxy Statement and annual report, please notify your broker, and direct a written request to us at MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, or contact us via telephone at (858) 373-1500. We will provide a separate copy of this Proxy Statement and the annual report to any stockholder at a shared address to which a single copy was delivered. Stockholders who currently receive multiple copies of the Proxy Statement and/or annual report at their address and would like to request "householding" of their communications should contact their broker.

ANNUAL REPORT

A copy of our 2009 Annual Report to Stockholders, excerpted from our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, has been mailed with this Proxy Statement.

Any person who was a beneficial owner of our Common Stock on the record date may request a copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2009, including financial statements thereto, but not including exhibits, and it will be furnished without charge upon receipt of a written request. Any such request should be addressed to us at MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, Attention: Investor Relations. The request must include a representation by the stockholder that, as of April 19, 2010, the stockholder was entitled to vote at the Annual Meeting. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2009 is on file with the SEC and may be accessed electronically at the SEC's website at www.sec.gov or at the Investor Relations-SEC Filings section of our website at www.medicinova.com.

Whether or not you intend to be present at the Annual Meeting, we urge you to return your signed proxy promptly.

By Order of the Board of Directors



Yuichi Iwaki, M.D., Ph.D.
President, Chief Executive Officer and Director

April 29, 2010

MEDICINOVA, INC.
Annual Meeting of Stockholders, Thursday, June 10, 2010
This Proxy is Solicited on Behalf of the Board of Directors of
MEDICINOVA, INC.

As an alternative to completing this form, you may enter your vote instruction by telephone at 1-800-PROXIES, or via the Internet at WWW.VOTEPROXY.COM and follow the simple instructions. Use the Company Number and Account Number shown on your proxy card.

The undersigned revokes all previous proxies, acknowledges receipt of the Notice of Annual Meeting of Stockholders to be held on Thursday, June 10, 2010 and the Proxy Statement and appoints each of Yuichi Iwaki, M.D., Ph.D. and Shintaro Asako, jointly and severally, as proxies for the undersigned, with full power of substitution, to vote all shares of Common Stock of MEDICINOVA, INC., or MediciNova, which the undersigned is entitled to vote, either on his or her own behalf or on behalf of any entity or entities, at the 2009 Annual Meeting of Stockholders of MediciNova to be held at the Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122 on Thursday, June 10, 2010, at 3:00 p.m. Pacific Daylight Time, or the Annual Meeting, and at any adjournment or postponement thereof, with the same force and effect as the undersigned might or could do if personally present thereat. The shares represented by this Proxy shall be voted in the manner set forth herein. If no direction is provided, this Proxy will be voted as recommended by the Board of Directors. The proxy holders are also authorized to vote upon all other matters as may properly come before the Annual Meeting, or any adjournment thereof, utilizing their own discretion as set forth in the Notice of Annual Meeting and Proxy Statement. MediciNova cannot assure that your shares will be voted unless you sign, date and return this Proxy so that it is received by June 8, 2010.

CONTINUED AND TO BE SIGNED ON REVERSE SIDE

MEDICINOVA, INC.

June 10, 2010

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The proxy statement is available at www.medicinova.com

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

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

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PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

1. To elect one Class III director to serve until the 2013 Annual Meeting of Stockholders and until each of their successors has been duly elected and qualified unless he or she resigns or is removed.

NOMINEE:
; Arlene Morris
; John K.A. Prendergast, Ph.D.

- FOR THE NOMINEE
WITHHOLD AUTHORITY FOR THE NOMINEE
FOR ALL EXCEPT (See instructions below)

INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here:

FOR AGAINST ABSTAIN
2. To ratify the appointment of KPMG LLP as independent registered public accounting firm of MediciNova for the fiscal year ending December 31, 2010.

In accordance with the discretion of the proxy holders, the proxy holders are authorized to vote upon all matters incident to the conduct of the meeting and upon other matters as may properly come before the meeting.

The Board of Directors recommends a vote IN FAVOR OF each of the director nominees listed in Proposal One and a vote IN FAVOR OF each of the other listed proposals. This Proxy, when properly executed, will be voted as specified herein by the undersigned stockholder. If no specification is made, this Proxy will be voted IN FAVOR OF Proposal Two.

To change the address on your account, please check the box at the right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Stockholder Date Signature of Stockholder Date

Note: Please sign exactly as your name or names appear 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.