

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

SCHEDULE 14A

(RULE 14a-101)
INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

**PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE SECURITIES
EXCHANGE ACT OF 1934**

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12

Confidential, for the Use of the Commission Only (as permitted by
Rule 14a-6(e)(2))

MEDICINOVA, INC.

(Name of Registrant as Specified in Its Charter)

Payment of Filing Fee (Check the appropriate box):

No fee required

Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.

(1) Title of each class of securities to which transaction applies:

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

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

(4) Proposed maximum aggregate value of transaction:

(5) Total fees paid:

Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:



MEDICINOVA, INC.
4350 La Jolla Village Dr., Suite 950
San Diego, CA 92122

**NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
TO BE HELD OCTOBER 13, 2006**

TO THE STOCKHOLDERS OF MEDICINOVA, INC.:

NOTICE IS HEREBY GIVEN that a Special Meeting of Stockholders of MEDICINOVA, INC. (the "Company"), a Delaware corporation, will be held at the Northern Trust Tower, 4370 La Jolla Village Dr., Suite 210, San Diego, CA 92122, on Friday, October 13, 2006, at 11:00 A.M., Pacific Daylight Time, for the following purposes:

1. To consider and act upon a proposal to approve an amendment to the Certificate of Incorporation of the Company to (i) give effect to a one-for-ten reverse stock split of the outstanding common stock of the Company, and (ii) reduce proportionately the number of authorized shares of common stock and preferred stock of the Company; and
2. To transact such other business as may properly come before the meeting or any adjournment or adjournments thereof.

The Board of Directors has fixed the close of business on August 15, 2006, as the record date for the meeting and only holders of shares of record at that time will be entitled to notice of and to vote at the Special Meeting of Stockholders or any adjournment or adjournments thereof.

By order of the Board of Directors,

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

YUICHI IWAKI, M.D., PH.D.
Chairman and CEO

San Diego, California
September 11, 2006

IMPORTANT

IF YOU CANNOT PERSONALLY ATTEND THE MEETING, IT IS REQUESTED THAT YOU INDICATE YOUR VOTE ON THE ISSUES INCLUDED ON THE ENCLOSED PROXY AND DATE, SIGN AND MAIL IT IN THE ENCLOSED SELF-ADDRESSED ENVELOPE.

MEDICINOVA, INC.
4350 La Jolla Village Dr., Suite 950
San Diego, CA 92122

PROXY STATEMENT
for
SPECIAL MEETING OF STOCKHOLDERS
to be held October 13, 2006

The enclosed proxy is solicited by the Board of Directors of MediciNova, Inc., a Delaware corporation (the "Company") in connection with a Special Meeting of Stockholders to be held at the Northern Trust Tower, 4370 La Jolla Village Dr., Suite 210, San Diego, CA 92122, on Friday, October 13, 2006, at 11:00 A.M., Pacific Daylight Time, for the purposes set forth in the accompanying Notice. Unless instructed to the contrary on the proxy, it is the intention of the persons named in the proxy to vote the proxies in favor of an amendment to the Company's Certificate of Incorporation to (i) give effect to a one-for-ten reverse stock split of the outstanding common stock of the Company, and (ii) reduce proportionately the number of authorized shares of common stock and preferred stock of the Company. The record date with respect to this solicitation is the close of business on August 15, 2006 and only stockholders of record at that time will be entitled to vote at the meeting. The principal executive office of the Company is 4350 La Jolla Village Dr., Suite 950, San Diego, CA 92122, and its telephone number is (858) 373-1500. The shares represented by all validly executed proxies received in time to be taken to the meeting and not previously revoked will be voted at the meeting. This proxy may be revoked by the stockholder at any time prior to its being voted by filing with the Secretary of the Company either a notice of revocation or a duly executed proxy bearing a later date. This proxy statement and the accompanying proxy were mailed to you on or about September 11, 2006.

OUTSTANDING SHARES; QUORUM; REQUIRED VOTE

The number of outstanding shares entitled to vote at the meeting is 102,264,856 common shares, par value \$.001 per share, not including 945,000 common shares held in treasury, which are not considered outstanding shares. Each common share is entitled to one vote. The presence in person or by proxy at the Special Meeting of the holders of a majority of such shares shall constitute a quorum. There is no cumulative voting. The affirmative vote of the holders of a majority of the total outstanding common shares is necessary to approve the amendment to the Certificate of Incorporation to (i) give effect to a one-for-ten reverse stock split of the outstanding common stock of the Company, and (ii) reduce proportionately the number of authorized shares of common stock and preferred stock of the Company.

Votes shall be counted by the person designated to serve as the inspector of elections. The inspector of elections will canvass the stockholders present in person at the meeting, count their votes and count the votes represented by proxies presented. Abstentions and broker nonvotes are counted for determining the number of shares represented at the meeting for purposes of a quorum, but are deemed not to have voted on the proposal, with the same effect as a vote against the proposal. Broker nonvotes occur when a nominee does not vote on one or more other matters at the meeting because it has not received instructions to so vote from the beneficial owner and does not have discretionary authority to so vote.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information as of July 31, 2006 as to shares of common stock of the Company (“Common Stock”) beneficially owned by: (i) each person who is known by us to own beneficially more than 5% of our Common Stock, (ii) each of our directors, (iii) each of our named executive officers 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 100,764,856 shares outstanding as of July 31, 2006, not including treasury shares, which are not considered outstanding shares. In addition, shares issuable pursuant to options and warrants which may be exercised within 60 days of July 31, 2006, 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.

Name and Address of Beneficial Owner (1)	Number of Shares of Common Stock Beneficially Owned	Percentage of Common Stock Beneficially Owned
5% Stockholders:		
Tanabe Holding America, Inc. (2)	10,000,000	9.9
Essex Woodlands Health Ventures Fund VI, L.P. (3)	11,826,204	11.7
Entities Affiliated with JAFCO Co., Ltd. (4)	7,000,000	6.9
Takashi Kiyozumi, M.D., Ph.D. (5)	6,538,400	6.2
Directors and Executive Officers:		
Yuichi Iwaki, M.D., Ph.D. (6)	6,844,953	6.5
John K. A. Prendergast, Ph.D. (7)	132,500	*
Daniel Vapnek, Ph.D. (7)	132,500	*
Hideki Nagao (7)	112,500	*
Jeff Himawan, Ph.D. (8)	11,826,204	11.7
Alan Dunton, M.D. (7)	6,250	*
Arlene Morris (7)	6,250	*
Richard E. Gammans, Ph.D. (7)	593,333	*
Kenneth W. Locke, Ph.D. (7)	678,333	*
Shintaro Asako, CPA (7)	200,000	*
All directors and executive officers as a group (10 persons)	20,532,823	19.0

* Amount represents less than 1% of the outstanding shares of the Company’s 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) The principal business address for Tanabe Holding America, Inc. is 401 Hackensack Avenue, 10th Floor, Hackensack, New Jersey 07601. We have been advised by Tanabe Holding America, Inc. that Messrs. Norihito Ujino and Masashi Kubo, Chief Executive Officer and Chief Financial Officer, respectively, of Tanabe Holding America, Inc., have voting and investment power over shares held by Tanabe Holding America, Inc.; however, prior to voting or investing our shares, the approval of the board of directors of Tanabe Seiyaku Co., Ltd. (Tanabe Holding America, Inc.’s Japanese parent) must be obtained.
- (3) Reflects 11,703,704 shares owned by Essex Woodlands Health Ventures Fund VI, L.P., and 122,500 shares subject to stock options held by Essex Woodlands Health Ventures, Inc., that are exercisable within 60 days of July 31, 2006. The principal business address for Essex Woodlands Health Ventures Fund VI, L.P. is 435 Tasso Street, Suite 305, 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) Represents 4,200,000 shares held by JAFCO G-(9)(A) Venture Capital Investment Limited Partnership and 2,800,000 shares held by JAFCO G-(9)(B) Venture Capital Investment Limited Partnership, each such entity a subsidiary of JAFCO Co., Ltd. The principal business address for JAFCO Co., Ltd. is Tekko Building, 1-8-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan. We have been advised by JAFCO Co., Ltd. that Messrs. Tomio Kezuka, Executive Vice President and Chief Operating Officer, and Toshiaki Itoh, President and Chief Executive Officer, of JAFCO Co., Ltd., have voting and investment power over shares held by JAFCO G-(9)(A) Venture Capital Investment Limited Partnership and JAFCO G-(9)(B) Venture Capital Investment Limited Partnership; however, prior to voting or investing our shares, the approval of JAFCO Co., Ltd.'s investment committee must be obtained.
- (5) Represents 1,850,000 shares held by Takashi Kiyozumi and 4,688,400 shares subject to a warrant held by Dr. Kiyozumi that currently is exercisable.
- (6) Includes 1,500,000 shares held by Yuichi Iwaki, 5,178,286 shares subject to a warrant that currently is exercisable and 166,667 shares subject to stock options exercisable within 60 days of July 31, 2006.
- (7) Reflects shares subject to stock options exercisable within 60 days of July 31, 2006.
- (8) Reflects 11,703,704 shares owned by Essex Woodlands Health Ventures Fund VI, L.P., of which Dr. Himawan serves as Managing Director and 122,500 shares subject to stock options held by Essex Woodlands Health Ventures, Inc. that are exercisable within 60 days of July 31, 2006. Dr. Himawan has named Essex Woodlands Health Ventures, Inc. as the designee to receive any 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.

**PROPOSAL TO AMEND THE CERTIFICATE OF INCORPORATION
TO GIVE EFFECT TO A ONE-FOR-TEN REVERSE STOCK SPLIT
OF THE COMMON STOCK OF THE COMPANY AND TO REDUCE
PROPORTIONATELY THE NUMBER OF AUTHORIZED SHARES OF THE COMPANY**

The Board of Directors is recommending that the stockholders approve an amendment to the Company's Certificate of Incorporation to (i) give effect to a one-for-ten reverse stock split of the shares of common stock of the Company (the "Reverse Stock Split"), and (ii) reduce proportionately the number of authorized shares of common stock and preferred stock of the Company. The shares of common stock of the Company have traded at varying levels of volume and at prices considerably lower than the initial public offering price for some time. For example, from January 1, 2006 through July 31, 2006, the Company's common stock has had an average closing price on the Osaka Securities Exchange of 140 yen per share. The Board of Directors has authorized the Reverse Stock Split to reduce the number of outstanding shares with the expectation that each share will trade at a higher price. The Board of Directors desires a higher trading price per share because it intends that the Company's common stock would meet the requirements for listing on the NASDAQ Global Market so that the Company may apply for listing of its common stock on the NASDAQ Global Market. The NASDAQ Global Market has an initial listing requirement that a company's common stock must have a minimum bid price per share of \$5.00, as well as meeting certain other requirements. The Board of Directors believes that in order to meet the NASDAQ Global Market's initial listing standards, the Company must implement the Reverse Stock Split.

Stockholders should recognize that if the Reverse Stock Split is effectuated, they will own 10% of the number of shares of the Company's common stock they presently own and that there can be no assurance that the market price of the Company's common stock will, in fact, increase correspondingly by ten times following consummation of the Reverse Stock Split or, even if such price increases by ten times, such post-Reverse Stock Split market price will be sustained. Furthermore, the Company has not formally applied for listing on the NASDAQ Global Market and there is no assurance that any such application, if made, will result in the Company's common stock being listed on the NASDAQ Global Market. Also, the possibility does exist that liquidity could be materially and adversely affected by the reduced number of shares that would be outstanding after the Reverse Stock Split. Consequently, there can be no assurance that the Reverse Stock Split will achieve the desired results that have been outlined above.

Except as a result of the delivery of cash in lieu of any fractional shares that result from the Reverse Stock Split, the Reverse Stock Split, in itself, will not affect any stockholder's percentage holdings in the Company. The Reverse Stock Split is a transaction rather than the first step in a series of transactions and will not cause the Company's common stock to be held of record by fewer than 300 persons.

The authorized capital stock of the Company consists of 200,000,000 shares of common stock and 5,000,000 shares of preferred stock. In connection with the Reverse Stock Split, the number of authorized shares of the Company's common stock will be reduced to 20,000,000 and the number of authorized shares of the Company's preferred stock will be reduced to 500,000. As of July 31, 2006, the Company had 100,764,856 shares issued and outstanding (not including treasury shares, which are not considered outstanding shares). The Reverse Stock Split will reduce this number to approximately 10,076,485 (not including treasury shares).

If the Reverse Stock Split is approved by the Company's stockholders, and if the Board of Directors in its discretion still believes at that time the Reverse Stock Split is in the best interests of the Company and its stockholders, the Company will file an amendment to its Certificate of Incorporation with the Secretary of State of Delaware after the Board of Directors votes in favor of effecting the Reverse Stock Split. A vote in favor of this proposal is a vote to approve an amendment to the Certificate of Incorporation in order to effect the Reverse Stock Split, and to reduce proportionately the number of authorized shares of common and preferred stock of the Company. Because an amendment to the Certificate of Incorporation must be approved under the Delaware General Corporation Law by a majority of the outstanding shares entitled to vote, the Company will only consider an amendment to the Delaware Certificate of Incorporation to have been approved by the stockholders if this proposal is also approved by a majority of the outstanding shares entitled to vote thereon.

The Reverse Stock Split will become effective on the opening of business on the day following the record date stated in the amended Certificate of Incorporation (the "Effective Date") and the stockholders who held shares of the Company's common stock as of the close of business on the record date ("Record Holders") will be notified as soon as practicable after the Effective Date that the Reverse Stock Split has been effected. The Company's transfer agent will act as its exchange agent (the "Exchange Agent") to act for the Record Holders owning shares represented by physical certificates in implementing the exchange of their certificates. Shares held through electronic book entry with Japan Securities Depository Center, Inc. (JASDEC) or The Depository Trust Company of New York (DTC) will be automatically adjusted to reflect the effects of the Reverse Stock Split.

As soon as practicable after the Effective Date, Record Holders with physical certificates for shares will be notified and requested to surrender their certificates representing shares of pre-split common stock of the Company ("Old Common Stock") to the Exchange Agent in exchange for certificates representing post-split common stock of the Company ("New Common Stock"). One share of New Common Stock will be issued in exchange for each ten shares of Old Common Stock.

No fractional shares will be created as a result of the Reverse Stock Split. Instead, stockholders who otherwise would be entitled to receive a fractional share will be entitled to receive cash in lieu of the fractional share based upon the closing sales price of the Company's common stock on the effective date of the Reverse Stock Split as reported on the Osaka Securities Exchange. The number of shares which will result in fractional interests cannot be precisely predicted as the Company cannot determine in advance the number of stockholders whose total holdings are not evenly divisible by ten.

For Record Holders of multiple physical certificates, the Company will aggregate the shares. In the case of street name holders, the Company's transfer agent will convert the certificates in accordance with instructions from the street name holders. Any physical certificates for shares of Old Common Stock not so surrendered shall be deemed to represent one share of New Common Stock for each ten shares of Old Common Stock previously represented by such certificate.

The proposed Reverse Stock Split will also reduce the number of shares of common stock available for issuance under the Company's 2004 Stock Incentive Plan and issuable upon exercise of outstanding stock options and warrants in proportion to the Reverse Stock Split ratio and will effect a proportionate increase in the exercise price of such outstanding stock options and warrants.

Stockholders do not have appraisal rights under Delaware General Corporation Law or under the Company's Certificate of Incorporation in connection with the Reverse Stock Split.

The proposed amendment to the Company's Certificate of Incorporation is set forth in Exhibit A.

OTHER MATTERS

The Board of Directors does not know of any matters other than those mentioned above to be presented to the meeting. If any other matters do come before the meeting, the persons named in the proxy will exercise their discretion in the voting thereof.

EXPENSES

All expenses in connection with solicitation of proxies will be borne by the Company. Officers, regular employees and consultants of the Company may solicit proxies by personal interview, telephone, facsimile or other means of electronic communication. Brokerage houses, banks and other custodians, nominees and fiduciaries will be reimbursed for out-of-pocket and reasonable expenses incurred in forwarding proxies and proxy statements.

By Order of the Board of Directors,



YUICHI IWAKI, M.D., PH.D.
Chairman & CEO

Certificate of Amendment
of
Restated Certificate of Incorporation
of
MEDICINOVA, INC.

Under Section 242 of the Delaware General Corporation Law

MediciNova, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation") hereby certifies as follows:

1. The Restated Certificate of Incorporation of the Corporation is hereby amended by changing Article IV, Section A thereof so that, as amended, said Article IV, Section A shall be and read as follows:

"A. Authorized Stock. The Corporation is authorized to issue two classes of stock to be designated respectively Preferred Stock ("Preferred Stock") and Common Stock ("Common Stock"). The total number of all shares of all classes of capital stock the Corporation shall have authority to issue is twenty million five hundred thousand (20,500,000). The total number of shares of Preferred Stock the Corporation shall have authority to issue is five hundred thousand (500,000). The total number of shares of Common Stock the Corporation shall have authority to issue is twenty million (20,000,000). The Preferred Stock shall have a par value of \$0.01 per share and the Common Stock shall have a par value of \$0.001 per share. The number of authorized shares of Common Stock or Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the then outstanding shares of Common Stock, without a vote of the holders of Preferred Stock, or of any series thereof, unless a vote of any such holders of Preferred Stock is required pursuant to the provisions established by the Board of Directors of the Corporation (the "Board of Directors") in the resolution or resolutions providing for the issue of such Preferred Stock, and if such holders of such Preferred Stock are so entitled to vote thereon, then, except as may otherwise be set forth in this Restated Certificate of Incorporation, the only stockholder approval required shall be the affirmative vote of a majority of the combined voting power of the Common Stock and the Preferred Stock so entitled to vote.

Each ten (10) shares of the Corporation's Common Stock, par value \$.001 per share, issued and outstanding as of the close of business on October [], 2006 shall be converted and reclassified into one (1) share of the Corporation's Common Stock, par value \$.001 per share."

2. The foregoing amendment has been duly adopted in accordance with the provisions of Section 242 of the Delaware General Corporation Law by the vote of a majority of the outstanding shares of common stock of the Corporation.

IN WITNESS WHEREOF, I have signed this Certificate this [] day of October, 2006.

YUICHI IWAKI, M.D., PH.D.
Chairman & CEO

MEDICINOVA, INC.

PROXY

Special Meeting of Stockholders—October 13, 2006.

The undersigned stockholder of MediciNova, Inc. (the “Company”) hereby appoints Yuichi Iwaki the proxy of the undersigned, with full power of substitution, to vote, as indicated herein, all the common shares of the Company standing in the name of the undersigned at the close of business on August 15, 2006, at the Special Meeting of Stockholders of the Company to be held at the Northern Trust Tower, 4370 La Jolla Village Dr., Suite 210, San Diego, CA 92122, on Friday, October 13, 2006, at 11:00 A.M., Pacific Daylight Time, and at any and all adjournments thereof, with all the powers the undersigned would possess if then and there personally present and especially (but without limiting the general authorization and power hereby given) to vote as indicated on the proposals, as more fully described in the Proxy Statement for the meeting.

(Please fill in the reverse side and return promptly in the enclosed envelope.)

Please mark boxes /O/ or /X/ in blue or black ink.

1. Proposal to amend the Certificate of Incorporation of the Company to give effect to (i) a one-for-ten reverse stock split of the common stock of the Company, and (ii) reduce proportionately the number of authorized shares of common stock and preferred stock of the Company.

For

Against

Abstain

2. In his discretion, the Proxy is authorized to vote upon such other business as may properly come before the meeting or any adjournment or adjournments thereof.

For

Against

Abstain

THIS PROXY IS SOLICITED BY THE BOARD OF DIRECTORS AND WILL BE VOTED **FOR** THE ABOVE PROPOSALS UNLESS OTHERWISE INDICATED.

[Please Sign, Date and Return this Proxy Card Promptly Using the Enclosed Envelope.]

SIGNATURE(S) should be exactly as name or names appear on this proxy. If stock is held jointly, each holder should sign. If signing is by attorney, executor, administrator, trustee or guardian, please give full title.

Dated _____, 2006

Signature

Print Name

Signature

Print Name