

MEDICINOVA INC
Form S-4/A
October 23, 2009
Table of Contents

As filed with the Securities and Exchange Commission on October 23, 2009

Registration No. 333-161969

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Amendment No. 1
to
FORM S-4
REGISTRATION STATEMENT

Under

The Securities Act of 1933

MEDICINOVA, INC.

(Exact name of Registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)	2834 (Primary Standard Industrial Classification Code Number) 4350 La Jolla Village Drive, Suite 950 San Diego, CA 92122 Tel: (858) 373-1500	33-0927979 (I.R.S. Employer Identification No.)
--------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Shintaro Asako

Chief Financial Officer

MediciNova, Inc.

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122

Tel: (858) 373-1500

Fax: (858) 373-7000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

David E. Schulman William J. Tuttle Dechert LLP 1775 I Street, N.W. Washington, D.C. 20006 Tel: (202) 261-3300	Andrew A. Sauter Chief Executive Officer, President and Chief Financial Officer Avigen, Inc. 1301 Harbor Bay Parkway Alameda, California 94502	Brett D. White Jennifer Fonner DiNucci Cooley Godward Kronish LLP Five Palo Alto Square 3000 El Camino Real Palo Alto, CA 94306
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Edgar Filing: MEDICINOVA INC - Form S-4/A

Fax: (202) 261-3333

Tel: (510) 748-7150

Tel: (650) 843-5000

Fax: (510) 748-7155

Fax: (650) 849-7400

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effectiveness of this registration statement and the satisfaction or waiver of all other conditions under the merger agreement described herein.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this joint proxy statement/prospectus is not complete and may be changed. We may not issue or sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary joint proxy statement/prospectus is not an offer to sell these securities, and we are not soliciting any offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY- SUBJECT TO COMPLETION-DATED OCTOBER 23, 2009

PROPOSED MERGER YOUR VOTE IS VERY IMPORTANT

The board of directors of MediciNova, Inc. and Avigen, Inc. each have approved a merger in which the businesses of MediciNova and Avigen will be combined. We are sending this joint proxy statement/prospectus to you to ask you to vote to adopt the Agreement and Plan of Merger by and among MediciNova, Absolute Merger, Inc. and Avigen, dated as of August 20, 2009, or the Merger Agreement, and certain other matters described herein.

The Merger Agreement provides that, upon the terms and subject to the conditions set forth therein, Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova, or Absolute Merger, will merge with and into Avigen, with Avigen continuing as the surviving entity and wholly-owned subsidiary of MediciNova. We refer to this transaction as the Merger.

Under the terms of the Merger Agreement, at the effective time of the Merger, each share of Avigen's common stock, together with the associated preferred stock purchase right, or Avigen common stock, will be cancelled and extinguished and automatically converted into the right to receive:

one of the following:

for each share of Avigen common stock with respect to which an election to receive cash has been made, the right to receive cash equal to the First Payment Consideration (as defined herein) and Second Payment Consideration (as defined herein), if any;

for each share of Avigen common stock for which an election to receive secured convertible notes to be issued by MediciNova, or the Convertible Notes, which will be governed by the indenture by and between MediciNova and American Stock Transfer & Trust Company, LLC, or the Indenture, described under the section of this joint proxy statement/prospectus entitled "Description of Convertible Notes" has been made, the right to receive one Convertible Note with a face value equal to the First Payment Consideration and Second Payment Consideration, if any; or

for each share of Avigen common stock with respect to which no valid election has been made, the right to receive cash equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any, and Convertible Notes with a face value equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any; and

one Contingent Payment Right, or a CPR, granting the holder thereof the rights described under the section entitled "Certain Terms of the Merger Agreement and the CPR Agreement Contingent Payment Rights" herein. MediciNova common stock is listed on the NASDAQ Global Market, or Nasdaq, under the symbol "MNOV" and on the Hercules Market of the Osaka Securities Exchange, or the OSE, under the code "4875," and Avigen common stock is listed on Nasdaq under the symbol "AVGN."

Your vote is very important. MediciNova and Avigen cannot complete the Merger unless (1) the MediciNova stockholders vote to adopt the Merger Agreement and approve the issuance of the Convertible Notes and (2) the Avigen stockholders vote to adopt the Merger Agreement. **Your failure to vote will have the same effect as a vote against the Merger.**

Edgar Filing: MEDICINOVA INC - Form S-4/A

MediciNova and Avigen each will hold a special meeting of stockholders to vote on proposals related to the Merger. The special meetings will be held at the dates, times and locations set forth below. Whether or not you plan to attend your company's special meeting, please take the time to submit your proxy either by completing and mailing the enclosed proxy card or using the telephone or Internet voting procedures described on your proxy card as soon as possible. If your shares of MediciNova common stock or Avigen common stock are held in an account with a bank, broker or other nominee, you must instruct your bank, broker or other nominee how to vote those shares.

Table of Contents

For MediciNova stockholders:

December 8, 2009 at 3:00 p.m. Pacific Standard Time at Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122.

The board of directors of MediciNova recommends that MediciNova stockholders vote FOR adoption of the Merger Agreement and approval of the issuance of the Convertible Notes and FOR any adjournment of the MediciNova special meeting, if necessary, to solicit additional proxies.

This joint proxy statement/prospectus gives you detailed information regarding the special meetings and the Merger. We urge you to read this joint proxy statement/prospectus carefully including Risk Factors beginning on page 22 for a discussion of risks relating to the Merger.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved the Convertible Notes and MediciNova common stock to be issued upon conversion thereof or passed upon the adequacy or accuracy of this joint proxy statement/prospectus. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated November [], 2009 and is first being mailed to MediciNova stockholders and Avigen stockholders on or about November [], 2009.

For Avigen stockholders:

December 8, 2009 at 3:00 p.m. Pacific Standard Time at 1301 Harbor Bay Parkway, Alameda, California 94502.

The board of directors of Avigen recommends that Avigen stockholders vote FOR adoption of the Merger Agreement and FOR any adjournment of the Avigen special meeting, if necessary, to solicit additional proxies.

Table of Contents

MEDICINOVA, INC.

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122 (858) 373-1500

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON DECEMBER 8, 2009

Dear MediciNova Stockholder:

On behalf of the board of directors of MediciNova, Inc., a Delaware corporation, we are pleased to deliver this joint proxy statement/prospectus relating to the proposed merger by which MediciNova, Inc. is proposing to acquire Avigen, Inc., a Delaware corporation, pursuant to that certain Agreement and Plan of Merger, dated as of August 20, 2009, among MediciNova, Absolute Merger, Inc., a Delaware corporation and direct wholly-owned subsidiary of MediciNova, and Avigen, Inc. A special meeting of stockholders of MediciNova, Inc. will be held on December 8, 2009 at 3:00 p.m. Pacific Standard Time at Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122 for the following purposes:

Proposal No. 1. To consider and vote upon the adoption of the Merger Agreement and issuance of the Convertible Notes; and

Proposal No. 2. To consider and vote upon an adjournment of the MediciNova special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

The MediciNova special meeting will also address such other business as may properly come before the MediciNova special meeting or any adjournment or postponement thereof.

The record date for the determination of stockholders entitled to notice of, and to vote at, the MediciNova special meeting and any adjournment or postponement thereof is October 30, 2009. Only stockholders of record at the close of business on that date are entitled to notice of, and to vote at, the MediciNova special meeting. At the close of business on the record date, MediciNova has outstanding and entitled to vote 12,099,588 shares of common stock.

Your vote is important. The affirmative vote of the holders of a majority of the outstanding shares of MediciNova common stock on the record date for the MediciNova special meeting is required for approval of Proposal No. 1 above. The affirmative vote of the holders of a majority of the votes cast in person or by proxy at the MediciNova special meeting is required to approve Proposal No. 2 above. **THE APPROVAL OF PROPOSAL NO. 1 IS A CONDITION TO THE COMPLETION OF THE MERGER.** Even if you plan to attend the MediciNova special meeting in person, we request that you sign and return the enclosed proxy card or vote by telephone or by using the Internet as instructed on the enclosed proxy card and thus ensure that your shares will be represented at the MediciNova special meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of each of Proposal Nos. 1 and 2 above. If you fail to return your proxy card or vote by telephone or by using the Internet, your shares will not be counted for purposes of determining whether a quorum is present at the MediciNova special meeting, and the effect will be a vote against the adoption of the Merger Agreement and issuance of the Convertible Notes. If you do attend the MediciNova special meeting and wish to vote in person, you may withdraw your proxy and vote in person.

The accompanying joint proxy statement/prospectus describes the Merger and the actions to be taken at the special meeting and provides additional information about the parties involved. Please give this information your careful attention.

Table of Contents

It is important that your shares are represented at the special meeting. Even if you plan to attend the meeting in person, we hope that you will either complete and mail the enclosed proxy card or use the telephone or Internet voting procedures described on your proxy card as soon as possible. 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

November [], 2009

THE MEDICINOVA BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE MERGER IS ADVISABLE AND FAIR TO, AND IN THE BEST INTERESTS OF, MEDICINOVA AND ITS STOCKHOLDERS, AND RECOMMENDS THAT MEDICINOVA STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO ADOPT THE MERGER AGREEMENT AND APPROVE THE ISSUANCE OF THE CONVERTIBLE NOTES. THE MEDICINOVA BOARD OF DIRECTORS ALSO RECOMMENDS THAT MEDICINOVA STOCKHOLDERS VOTE FOR PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF ADOPTION OF THE MERGER AGREEMENT AND ISSUANCE OF THE CONVERTIBLE NOTES.

Table of Contents

AVIGEN, INC.

1301 Harbor Bay Parkway

Alameda, California 94502

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON DECEMBER 8, 2009

Dear Avigen Stockholder:

On behalf of the board of directors of Avigen, Inc., a Delaware corporation, we are pleased to deliver this joint proxy statement/prospectus relating to the proposed merger by which MediciNova, Inc., a Delaware corporation, is proposing to acquire Avigen, Inc. pursuant to that certain Agreement and Plan of Merger, dated as of August 20, 2009, among MediciNova, Absolute Merger, Inc., a Delaware corporation and direct wholly-owned subsidiary of MediciNova, and Avigen, Inc. A special meeting of stockholders of Avigen, Inc. will be held on December 8, 2009 at 3:00 p.m. Pacific Standard Time at 1301 Harbor Bay Parkway, Alameda, California 94502 for the following purposes:

Proposal No. 1. To consider and vote upon the adoption of the Merger Agreement; and

Proposal No. 2. To consider and vote upon an adjournment of the Avigen special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

The Avigen special meeting will also address such other business as may properly come before the Avigen special meeting or any adjournment or postponement thereof.

The record date for the determination of stockholders entitled to notice of, and to vote at, the Avigen special meeting and any adjournment or postponement thereof is October 30, 2009. Only stockholders of record at the close of business on that date are entitled to notice of, and to vote at, the Avigen special meeting. At the close of business on the record date, Avigen has outstanding and entitled to vote 29,836,365 shares of common stock.

Your vote is important. The affirmative vote of the holders of a majority of the outstanding shares of Avigen common stock on the record date for the Avigen special meeting is required for approval of Proposal No. 1 above. The affirmative vote of the holders of a majority of the votes cast in person or by proxy at the Avigen special meeting is required to approve Proposal No. 2 above. **THE APPROVAL OF PROPOSAL NO. 1 IS A CONDITION TO THE COMPLETION OF THE MERGER.** Even if you plan to attend the Avigen special meeting in person, we request that you sign and return the enclosed proxy card or vote by telephone or by using the Internet as instructed on the enclosed proxy card and thus ensure that your shares will be represented at the Avigen special meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of each of Proposal Nos. 1 and 2 above. If you fail to return your proxy card or vote by telephone or by using the Internet, your shares will not be counted for purposes of determining whether a quorum is present at the Avigen special meeting, and the effect will be a vote against the adoption of the Merger Agreement. If you do attend the Avigen special meeting and wish to vote in person, you may withdraw your proxy and vote in person.

Please do not send any certificates representing your Avigen common stock at this time.

The accompanying joint proxy statement/prospectus describes the Merger and the actions to be taken at the special meeting and provides additional information about the parties involved. Please give this information your careful attention.

Table of Contents

It is important that your shares are represented at the special meeting. Even if you plan to attend the meeting in person, we hope that you will either complete and mail the enclosed proxy card or use the telephone or Internet voting procedures described on your proxy card as soon as possible. This will not limit your right to attend or vote at the meeting.

By Order of the Board of Directors

Sincerely,

ANDREW SAUTER

President and Chief Executive Officer

Alameda, California

November [], 2009

THE AVIGEN BOARD OF DIRECTORS HAS DETERMINED THAT THE MERGER AGREEMENT AND THE MERGER ARE ADVISABLE, FAIR TO AND IN THE BEST INTERESTS OF AVIGEN AND ITS STOCKHOLDERS, AND RECOMMENDS THAT AVIGEN STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO ADOPT THE MERGER AGREEMENT. THE AVIGEN BOARD OF DIRECTORS ALSO RECOMMENDS THAT AVIGEN STOCKHOLDERS VOTE FOR PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF ADOPTION OF THE MERGER AGREEMENT.

Table of Contents

ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about MediciNova, Inc. and Avigen, Inc. from documents filed with the Securities and Exchange Commission, or the SEC, that are not included in or delivered with this joint proxy statement/prospectus.

MediciNova will provide you with copies of this information relating to it, without charge, upon written or oral request to:

MediciNova, Inc.

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122

Tel: (858) 373-1500

Avigen will provide you with copies of this information relating to it, without charge, upon written or oral request to:

Avigen, Inc.

1301 Harbor Bay Parkway

Alameda, California 94502

Tel: (510) 748-7150

In order to receive timely delivery of the documents in advance of your stockholder meeting, you must request this information no later than December 1, 2009.

You may also obtain these documents at the SEC's website, www.sec.gov, and you may obtain certain of these documents at MediciNova's website, www.medicinova.com, by going to the Investor Relations section and at Avigen's website, www.avigen.com, by going to the Investors section.

You should rely only on the information contained in this joint proxy statement/prospectus to vote on the matters set forth herein. No one has been authorized to provide you with information that is different from that contained in this joint proxy statement/prospectus. This joint proxy statement/prospectus is dated November [], 2009. You should not assume that the information contained in this joint proxy statement/prospectus is accurate as of any date other than that date. Neither the mailing of this joint proxy statement/prospectus to MediciNova stockholders or Avigen stockholders nor the issuance by MediciNova of Convertible Notes in connection with the Merger will create any implication to the contrary.

This joint proxy statement/prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction to or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction. Information contained in this joint proxy statement/prospectus regarding MediciNova has been provided by MediciNova, and information contained in this joint proxy statement/prospectus regarding Avigen has been provided by Avigen.

Table of Contents**TABLE OF CONTENTS**

	Page
<u>QUESTIONS AND ANSWERS ABOUT THE MERGER</u>	1
<u>SUMMARY</u>	6
<u>SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL DATA</u>	17
<u>RISK FACTORS</u>	22
<u>FORWARD-LOOKING STATEMENTS</u>	62
<u>THE SPECIAL MEETING OF MEDICINOVA STOCKHOLDERS</u>	63
<u>THE SPECIAL MEETING OF AVIGEN STOCKHOLDERS</u>	66
<u>THE MERGER</u>	69
<u>CERTAIN TERMS OF THE MERGER AGREEMENT AND THE CPR AGREEMENT</u>	99
<u>MEDICINOVA S BUSINESS</u>	118
<u>AVIGEN S BUSINESS</u>	147
<u>MEDICINOVA S MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION</u>	155
<u>MEDICINOVA S QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	170
<u>AVIGEN S MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION</u>	171
<u>AVIGEN S QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	187
<u>MEDICINOVA MANAGEMENT</u>	188
<u>CORPORATE GOVERNANCE</u>	193
<u>COMPENSATION DISCUSSION AND ANALYSIS</u>	194
<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS</u>	205
<u>MEDICINOVA SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT</u>	206
<u>AVIGEN SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT</u>	208
<u>MARKET PRICES AND DIVIDENDS ON COMMON STOCK AND RELATED STOCKHOLDER MATTERS</u>	210
<u>MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER</u>	213
<u>UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS</u>	219
<u>DESCRIPTION OF COMMON STOCK</u>	228
<u>DESCRIPTION OF CONVERTIBLE NOTES</u>	231
<u>COMPARISON OF STOCKHOLDER RIGHTS AND CORPORATE GOVERNANCE MATTERS</u>	237
<u>LEGAL MATTERS</u>	242
<u>EXPERTS</u>	242
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	242
<u>INDEX TO MEDICINOVA S CONSOLIDATED FINANCIAL STATEMENTS</u>	FI-1
<u>INDEX TO AVIGEN S FINANCIAL STATEMENTS</u>	FI-41
<u>ANNEX A - AGREEMENT AND PLAN OF MERGER</u>	A-1
<u>ANNEX B - CONTINGENT PAYMENT RIGHTS AGREEMENT</u>	B-1
<u>ANNEX C - INDENTURE</u>	C-1
<u>ANNEX D - TRUST AGREEMENT</u>	D-1
<u>ANNEX E - ESCROW AGREEMENT</u>	E-1
<u>ANNEX F - FORM OF OPINION OF LADENBURG THALMANN & CO. INC</u>	F-1
<u>ANNEX G - FORM OF OPINION OF RBC CAPITAL MARKETS CORPORATION</u>	G-1
<u>ANNEX H - COPY OF SECTION 262 OF THE DELAWARE GENERAL CORPORATION LAW</u>	H-1

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE MERGER

The following are some questions that you, as a stockholder of MediciNova or Avigen, may have regarding the Merger, and the answers to those questions. You are urged to read carefully this joint proxy statement/prospectus and the other documents referred to in this joint proxy statement/prospectus in their entirety because the information in this section does not provide all of the information that might be important to you with respect to the Merger and the other matters being considered at the special meetings. Additional important information is contained in the annexes to this joint proxy statement/prospectus.

Q: Why am I receiving this joint proxy statement/prospectus?

A: You are receiving this joint proxy statement/prospectus because you were a stockholder of record of MediciNova or Avigen as of the close of business on October 30, 2009, the record date for the MediciNova special meeting, or October 30, 2009, the record date for the Avigen special meeting. MediciNova and Avigen are sending this joint proxy statement/prospectus and the form of proxy card to solicit your proxy to vote upon certain matters at their respective special meetings.

Q: What is the Merger?

A: MediciNova and Avigen have agreed to the Merger, pursuant to which Avigen will become a wholly-owned subsidiary of MediciNova. Under the terms of the Merger Agreement, which has been approved by both companies' boards of directors, Avigen stockholders will have the right to elect to receive an amount currently estimated at approximately \$1.24 per share in either cash or Convertible Notes to be issued by MediciNova. Approximately \$1.19 of this consideration will be paid at the closing, and approximately \$0.05 will be paid at June 30, 2010. As set forth in the Merger Agreement and described herein, both payments are subject to certain potential adjustments. See Certain Terms of the Merger Agreement Merger Agreement First Payment Consideration and Certain Terms of the Merger Agreement Merger Agreement Second Payment Consideration. In addition, Avigen's stockholders will be entitled to one CPR for each share of Avigen common stock, which will entitle holders under certain circumstances to the payments described under Certain Terms of the Merger Agreement and the CPR Agreement Contingent Payment Rights CPR Payments.

Q: What matters will be considered at the special meetings?

A: At the MediciNova special meeting, MediciNova stockholders will be asked to vote to adopt the Merger Agreement and approve the issuance of the Convertible Notes. At the Avigen special meeting, Avigen stockholders will be asked to vote to adopt the Merger Agreement.

Q: What are the recommendations of the boards of directors of MediciNova and Avigen?

A: MediciNova's board of directors recommends that you vote **FOR** the adoption of the Merger Agreement and approval of the issuance of the Convertible Notes. Avigen's board of directors recommends that you vote **FOR** the adoption of the Merger Agreement.

Q: Why is this a joint proxy statement/proxy?

A: MediciNova and Avigen are delivering this joint proxy statement/prospectus to you as both a proxy statement of MediciNova and Avigen and a prospectus of MediciNova. It is a proxy statement of MediciNova because MediciNova's board of directors is soliciting proxies from MediciNova stockholders to vote on the adoption of the Merger Agreement and issuance of the Convertible Notes, and such proxies will

Edgar Filing: MEDICINOVA INC - Form S-4/A

be used at the meeting or at any adjournment or postponement thereof. It is a proxy statement of Avigen because Avigen's board of directors is soliciting proxies from Avigen stockholders to vote on the adoption

Table of Contents

of the Merger Agreement, and such proxies will be used at the meeting or at any adjournment or postponement thereof. It is a prospectus of MediciNova because MediciNova is offering Convertible Notes to certain Avigen stockholders as part of the Merger.

Q: What is a proxy, and who is paying the costs to prepare this joint proxy statement/prospectus and solicit my proxy?

A: A proxy is your legal designation of another person to vote your shares of common stock. The document that designates someone as your proxy is also called a proxy or a proxy card.

MediciNova will pay all expenses of this solicitation as it pertains to MediciNova stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card, and Avigen will pay all expenses of this solicitation as it pertains to Avigen stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card.

Q: When do MediciNova and Avigen need to receive my proxy in order for my vote to count?

A: MediciNova and Avigen must receive your proxy the business day before their respective special meetings in order for your proxy to be voted at the applicable special meeting.

Q: What approval of each of MediciNova's and Avigen's stockholders is required to consummate the Merger?

A: The Merger Agreement must be adopted by the holders of a majority of the outstanding shares of MediciNova common stock and a majority of the outstanding shares of Avigen common stock. Failure to vote or abstention from voting will have the same effect as a vote **AGAINST** the matters submitted for consideration at the special meetings.

Q: How will abstentions be counted?

A: Abstentions are counted as present and entitled to vote for purposes of determining a quorum. Abstentions have the same effect as a vote **AGAINST** adoption of the Merger Agreement and the issuance of the Convertible Notes.

Q: What do I need to do now in order to vote?

A: After you have read this joint proxy statement/prospectus carefully, please respond as soon as possible so that your shares will be represented and voted at the appropriate special meeting by completing, signing and dating your proxy card or voting instruction card and returning it in the postage-paid envelope or voting by telephone or Internet as instructed on the proxy card or voting instruction card.

Q: How do I vote my shares if my shares are held in street name by my broker?

A: You should contact your broker or bank who holds your shares in street name. Your broker or bank can give you directions on how to instruct such broker or bank to vote your shares. Your broker or bank will not vote your shares unless the broker or bank receives appropriate instructions from you. Thus, if you do not give your broker or nominee specific instructions on how to vote for you or do not vote for yourself in accordance with the voting instructions on the proxy card being forwarded to you, your shares will be treated as present for the purposes of a quorum but will have the effect of a vote **AGAINST** such proposal. You should provide your broker or bank

Edgar Filing: MEDICINOVA INC - Form S-4/A

with instructions as to how to vote your shares. You cannot vote shares held in street name by returning a proxy card to MediciNova or Avigen. In addition, if you are an Avigen stockholder, when you receive a form of election, you should follow your broker's or bank's instructions for making an election with respect to your shares of Avigen common stock.

Table of Contents

Q: When and where are the stockholder meetings and who may attend?

A: The MediciNova special meeting will take place at 3:00 p.m. Pacific Standard Time on December 8, 2009. The location of the MediciNova special meeting is the Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122. Only MediciNova stockholders, their proxy holders and MediciNova's invited guests may attend the meeting.

The Avigen special meeting will take place at 3:00 p.m. Pacific Standard Time on December 8, 2009. The location of the Avigen special meeting is 1301 Harbor Bay Parkway, Alameda, California 94502. Only Avigen stockholders, their proxy holders and Avigen's invited guests may attend the meeting.

Q: Who is entitled to vote at the special meetings?

A: Only holders of shares of MediciNova common stock as of the record date for the MediciNova special meeting, which is October 30, 2009, are entitled to vote at the MediciNova special meeting, and only holders of shares of Avigen common stock as of the record date for the Avigen special meeting, which is October 30, 2009, are entitled to vote at the Avigen special meeting.

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

A: You have one vote at the MediciNova special meeting for each share of MediciNova common stock that you held as of the record date for the MediciNova special meeting and one vote at the Avigen special meeting for each share of Avigen common stock that you held as of the record date for the Avigen special meeting. Cumulative voting is not allowed. As of the record date for the MediciNova special meeting, there were 12,099,588 shares of MediciNova common stock outstanding, and, as of the record date for the Avigen special meeting, there were 29,836,365 shares of Avigen common stock outstanding.

Q: What constitutes a quorum for the special meetings?

A: A majority of the outstanding shares having voting power being present in person or represented by proxy constitutes a quorum for each of the special meetings.

Q: Who will constitute the management and board of directors of the combined company?

A: The management and board of directors of the combined company will consist of the management and board of directors of MediciNova immediately prior to the Merger. The board of directors of the combined company is expected to be comprised of the following seven individuals: Jeff Himawan, Ph.D.; Alan W. Dunton, M.D.; Yuichi Iwaki, M.D., Ph.D.; Arlene Morris; Hideki Nagao; John K.A. Prendergast, Ph.D. and Hiroaki Shigeta. The senior management team of the combined company is expected to be comprised of: Yuichi Iwaki, M.D., Ph.D.; Shintaro Asako, CPA, and Masatsune Okajima.

Q: Are there risks associated with the Merger that I should consider in deciding how to vote?

A: Yes. There are a number of risks related to the Merger, the Convertible Notes, MediciNova and Avigen that are discussed in this joint proxy statement/prospectus. Please read with particular care the detailed description of the risks associated with the Merger beginning on page 22.

Q: When do you currently expect to complete the Merger?

A: MediciNova and Avigen currently expect to complete the Merger in the fourth quarter of 2009. However, MediciNova and Avigen cannot assure you when or if the Merger will occur. The companies must obtain the approval of MediciNova stockholders and Avigen stockholders at the special meetings and satisfy the closing conditions set forth in the Merger Agreement before the Merger can be completed.

Table of Contents

Q: If I am an Avigen stockholder, when must I elect the type of merger consideration that I prefer to receive?

A: Avigen stockholders who wish to elect the type of merger consideration they prefer to receive in the Merger should carefully review and follow the instructions set forth in the form of election that will be provided to Avigen stockholders at a later date. MediciNova will make the form of election available at least 20 business days prior to the anticipated election deadline. The election deadline is 5:00 p.m. New York City time on the date of the Avigen special meeting. If an Avigen stockholder does not submit a properly completed and signed form of election to the exchange agent by the election deadline, such stockholder will receive 50 percent of the merger consideration in cash and 50 percent in Convertible Notes.

Q: If I am an Avigen stockholder, should I send in my Avigen stock certificates now?

A: No. After completion of the Merger, MediciNova will send you instructions for exchanging your Avigen stock certificates for the merger consideration.

Q: Are Avigen stockholders entitled to seek appraisal rights if they do not vote in favor of the adoption of the Merger Agreement?

A: Yes. Under Delaware law, record holders of Avigen common stock who do not vote in favor of the adoption of the Merger Agreement will be entitled to seek appraisal rights in connection with the Merger, and if the Merger is completed, obtain payment in cash of the fair value of their shares of Avigen common stock as determined by the Delaware Chancery Court, instead of the merger consideration. To exercise your appraisal rights, you must strictly follow the procedures prescribed by Delaware law and included as Annex H hereto. Failure to strictly comply with these provisions will result in a loss of the right of appraisal.

Q: What if I want to change my vote after I have delivered my proxy card or voted by telephone or Internet?

A: You may change your vote at any time before your proxy is voted at the applicable special meeting. If you are the record holder of your shares, you can do this in any of the three following ways:

by sending a written revocation to the secretary of MediciNova or Avigen, as appropriate, in time to be received before the appropriate special meeting stating that you would like to revoke your proxy;

by properly completing another proxy card that is dated later than the original proxy and returning it in time to be received before the appropriate special meeting;

by providing proxy instructions via telephone or the Internet at a later date (a stockholder's latest telephone or Internet proxy is counted); or

by voting in person at the appropriate special meeting if your shares of MediciNova common stock or Avigen common stock are registered in your name rather than in the name of a broker or bank.

If your shares are held in street name, you should contact your broker or bank to give it instructions to change your vote.

Will my vote be confidential?

Edgar Filing: MEDICINOVA INC - Form S-4/A

Yes. MediciNova and Avigen will continue their practice of keeping the votes of all stockholders confidential. Stockholder votes will not be disclosed to MediciNova's or Avigen's directors, officers, employees or agents, except:

as necessary to meet applicable legal requirements;

in a dispute regarding authenticity of proxies and ballots;

Table of Contents

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.

Q: Where is MediciNova's common stock traded?

A: MediciNova's common stock is traded and quoted on Nasdaq under the symbol MNOV and on the Hercules Market of the OSE under the code 4875.

Q: Where is Avigen's common stock traded?

A: Avigen's common stock is traded and quoted on Nasdaq under the symbol AVGN.

Q: Who can I call with questions about the special meetings or the Merger?

A: If you are a MediciNova stockholder and you have questions about the Merger or the MediciNova special meeting or you need additional copies of this joint proxy statement/prospectus, or if you have questions about the process for voting or if you need a replacement proxy card, you should contact:

Advantage Proxy
24925 13th Place South
Des Moines, WA 98198
(206) 870-8565

If you are an Avigen stockholder and you have questions about the Merger or the Avigen special meeting or you need additional copies of this joint proxy statement/prospectus, or if you have questions about the process for voting or if you need a replacement proxy card, you should contact:

Investor Relations
Avigen, Inc.
1301 Harbor Bay Parkway
Alameda, California 94502
(510) 748-7150

Q: Where can I find more information about the companies?

A: You can find more information about MediciNova and Avigen in this joint proxy statement/prospectus and from the various sources described under Where You Can Find More Information.

Table of Contents

SUMMARY

This summary highlights the material terms of the Merger and other material information contained or incorporated by reference in this joint proxy statement/prospectus. You should read carefully this entire joint proxy statement/prospectus and the documents referred to in this joint proxy statement/prospectus for a more complete description of the terms of the Merger and related agreements. The Merger Agreement is attached as Annex A and the forms of CPR Agreement and Indenture are attached as Annexes B and C, respectively, to this joint proxy statement/prospectus. You are encouraged to read the Merger Agreement as it is the legal document that governs the Merger, as well as these additional documents attached as Annexes hereto. In this joint proxy statement/prospectus, unless the context otherwise requires, MediciNova refers to MediciNova, Inc. and its subsidiaries, Avigen refers to Avigen, Inc. and Absolute Merger refers to Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova.

The Companies

MediciNova, Inc.

MediciNova is a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of diseases with unmet medical need with a specific focus on the U.S. market. Through strategic alliances, primarily with Japanese pharmaceutical companies, MediciNova holds rights to a diversified portfolio of clinical and preclinical product candidates, each of which MediciNova believes has a well-characterized and differentiated therapeutic profile, attractive commercial potential and patent assets having claims of commercially adequate scope.

MediciNova was incorporated under the laws of the State of Delaware in September 2000. MediciNova's principal executive offices are located at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122. MediciNova's telephone number is (858) 373-1500.

Absolute Merger, Inc.

Absolute Merger is a Delaware corporation and a wholly-owned subsidiary of MediciNova incorporated on August 17, 2009. Absolute Merger does not engage in any operations and exists solely to facilitate the Merger. Absolute Merger's principal executive offices are located at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122. Absolute Merger's telephone number is (858) 373-1500.

Avigen, Inc.

Avigen is a biopharmaceutical company that has focused on identifying and developing differentiated products to treat patients with serious disorders. Avigen's strategy was to conceive or acquire and develop opportunities that represent a positive return to Avigen stockholders. The company's current potential product is AV411, a glial attenuator, for neuropathic pain and opioid withdrawal and methamphetamine addiction.

Avigen was incorporated under the laws of the State of Delaware in October 1992. Avigen's principal executive offices are located at 1301 Harbor Bay Parkway, Alameda, California 94502. Avigen's telephone number is (510) 748-7150.

Ibudilast

Ibudilast is an orally available, small molecule therapeutic that has been in clinical development by MediciNova for the treatment of multiple sclerosis, or MS (MN-166), and by Avigen for the treatment of neuropathic pain and opioid withdrawal and drug addiction (AV411). Following completion of the Merger, MediciNova intends to integrate the two ibudilast-based product development programs and pursue discussions with potential partners to secure a strategic collaboration to advance the clinical development of the combined development programs.

Table of Contents

Special Meeting of MediciNova Stockholders

Date, Time and Place. The special meeting of MediciNova stockholders will be held on December 8, 2009, at 3:00 p.m. Pacific Standard Time at Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122. At the special meeting, MediciNova stockholders will be asked to consider the proposal to adopt the Merger Agreement and approve the issuance of the Convertible Notes and the adjournment and postponement of the special meeting to a later date or time, if necessary or appropriate, to solicit additional proxies in the event there are insufficient votes at the time of the special meeting to adopt the Merger Agreement and approve the issuance of the Convertible Notes. The MediciNova special meeting also will address such other business as may properly come before the MediciNova special meeting or any adjournment or postponement thereof.

Record Date. Only MediciNova stockholders of record at the close of business on October 30, 2009 will be entitled to vote at the special meeting. Each share of MediciNova common stock is entitled to one vote. As of the record date, there were 12,099,588 shares of MediciNova common stock outstanding and entitled to vote at the special meeting.

Vote Required for Approval. To adopt the Merger Agreement and approve the issuance of the Convertible Notes, the holders of a majority of the outstanding shares of MediciNova common stock entitled to vote must vote in favor of the adoption of the Merger Agreement and approve the issuance of the Convertible Notes. Because adoption of the Merger Agreement and approval of the issuance of the Convertible Notes requires the affirmative vote of a majority of shares outstanding, a MediciNova stockholder's failure to vote or abstention from voting will have the same effect as a vote against approval of the issuance of the Convertible Notes.

To approve the proposal to adjourn or postpone the special meeting, if necessary or appropriate, a majority of the shares of MediciNova common stock present in person or represented by proxy at the special meeting and entitled to vote must vote in favor of such proposal. A MediciNova stockholder's failure to vote or abstention from voting will have no effect on the proposal for possible adjournment or postponement of the special meeting.

Share Ownership by Management. As of the record date, the directors and executive officers of MediciNova beneficially owned in the aggregate approximately 23.3 percent of the outstanding shares of MediciNova common stock entitled to vote at the special meeting.

Recommendation to MediciNova's Stockholders

MediciNova's board of directors has approved and adopted the Merger Agreement and approved the issuance of the Convertible Notes. The board of directors of MediciNova recommends that MediciNova stockholders vote **FOR** adoption of the Merger Agreement and the issuance of the Convertible Notes and **FOR** the approval of the proposal to adjourn or postpone the special meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the Merger Agreement and approval of the issuance of the Convertible Notes at the time of the special meeting.

Special Meeting of Avigen Stockholders

Date, Time and Place. The special meeting of Avigen stockholders will be held on December 8, 2009, at 3:00 p.m. Pacific Standard Time at 1301 Harbor Bay Parkway, Alameda, California 94502. At the special meeting, Avigen stockholders will be asked to consider the proposal to adopt the Merger Agreement and the adjournment and postponement of the special meeting to a later date or time, if necessary or appropriate, to solicit additional proxies in the event there are insufficient votes at the time of the special meeting to adopt the Merger Agreement. The Avigen special meeting also will address such other business as may properly come before the Avigen special meeting or any adjournment or postponement thereof.

Table of Contents

Record Date. Only Avigen stockholders of record at the close of business on October 30, 2009 will be entitled to vote at the special meeting. Each share of Avigen common stock is entitled to one vote. As of the record date, there were 29,831,115 shares of Avigen common stock outstanding and entitled to vote at the special meeting.

Vote Required for Approval. To adopt the Merger Agreement, the holders of a majority of the outstanding shares of Avigen common stock entitled to vote must vote in favor of the adoption of the Merger Agreement. Because adoption of the Merger Agreement requires the affirmative vote of a majority of shares outstanding, an Avigen stockholder's failure to vote or abstention from voting will have the same effect as a vote against adoption of the Merger Agreement.

To approve the proposal to adjourn or postpone the special meeting, if necessary or appropriate, a majority of the shares of Avigen common stock present in person or represented by proxy at the special meeting and entitled to vote must vote in favor of such proposal. An Avigen stockholder's failure to vote or abstention from voting will have no effect on the proposal for possible adjournment or postponement of the special meeting.

Share Ownership by Management. As of the record date, the directors and executive officers of Avigen beneficially owned in the aggregate less than one percent of the outstanding shares of Avigen common stock entitled to vote at the special meeting.

Recommendation to Avigen's Stockholders

Avigen's board of directors has approved and adopted the Merger Agreement and approved the Merger. The board of directors of Avigen recommends that Avigen's stockholders vote **FOR** the adoption of the Merger Agreement and **FOR** the approval of the proposal to adjourn or postpone the special meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the Merger Agreement.