

Mail Stop 4720

November 9, 2009

Shintaro Asako  
Chief Financial Officer  
MediciNova, Inc.  
4350 La Jolla Village Drive, Suite 950  
San Diego, CA 92122

Andrew A. Sauter  
Chief Executive Officer, President and Chief Financial Officer  
Avigen, Inc.  
1301 Harbor Bay Parkway  
Alameda, CA 94502

**Re: MediciNova, Inc.  
Registration Statement on Form S-4/A  
Filed October 23, 2009  
File No. 333-161969**

Dear Messrs. Asako and Sauter:

We have conducted a limited review of your filing. Our review was limited to legal issues and did not include a review of the financial statements and disclosures related to accounting issues. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

FORM S-4

Risk Factors, page 22

Risks Related to MediciNova's Business and Industry, page 32

"MediciNova is dependent on its management team..." page 46

1. We note your response to our prior comment 23 and your statement that MediciNova has revised the risk factor to the effect that it has not experienced difficulties attracting and retaining key personnel. However, it does not appear that you have added this disclosure. Please revise accordingly.

Background of the Merger, page 69

2. Please refer to our prior comment 32. We note that you have disclosed that RBC conducted a liquidation analysis and stock trading analysis. Please summarize the results of these analyses. Specially, please state the approximate liquidation value you reference throughout this section.
3. Please refer to prior comment 34. We note that you have added a description of the four parties the board instructed management to continue discussions with. Please revise this description to include the relative size of each of the four entities (i.e. large or mid-size public company, small private company).

Opinion of RBC Capital Markets Corporation. - Financial Advisor to Avigen, page 89

4. Please refer to prior comment 48. Please revise your disclosure to discuss the basis for your belief, as set forth in your response, that stockholders of Avigen are not entitled to rely on RBC's fairness opinion. Please disclose that the availability of such a defense will be resolved by a court of competent jurisdiction and include your assessment of recent court decisions. Please also disclose that resolution of the question of availability of such a defense will have no effect on the rights and responsibilities of the board of directors under applicable state law. Finally, please disclose that the availability of such a state-law defense to RBC would have no effect on the rights and responsibilities of either RBC or the board under the federal securities laws.

Avigen's Business, page 148

5. Please break out the total payments Avigen may receive pursuant to assignment agreement with Genzyme by aggregate milestone payments, sublicensing fees and royalty payments.

Compensation Discussion and Analysis, page 194  
Use of Compensation Consultants, page 195

6. We note that there are fourteen biotechnology companies listed in the peer group on page 195, but your narrative description states there were only 12. Please correct this apparent discrepancy as appropriate.

Material U.S. Federal Income Tax Consequences of the Merger, page 213

7. We note the following statements in your disclosure of material tax consequences:
  - “Avigen stockholders receiving Convertible Notes in the Merger *should have* an adjusted basis in the Convertible Notes ... equal to...” (page 214);
  - “*While not free from doubt*, shares received generally have a holding period that includes ...” (page 214);
  - “Amounts received on account of the Second Payment Consideration rights ... *should have* an amount of unstated interest equal to ...” (page 215); and
  - “*While not free from doubt*, we intend to take the position that the Non-U.S. Holders receiving Second Payment Consideration rights in the Merger are ...” (page 217)

(emphasis added)

If doubt exists because of a lack of authority directly addressing the tax consequences or conflicting authority, counsel may use the words “should” or “while not free from doubt” to make it clear that its opinion is subject to a degree of uncertainty. However, in such cases, you must provide disclosure explaining why counsel cannot give a “will” opinion, describe the degree of uncertainty in the opinion and set forth the risks to investors in a risk factor and/or other appropriate disclosure.

8. Your discussion must also identify counsel and clearly state that the discussion in the prospectus as to each identified tax item is counsel’s opinion. Please revise accordingly.

Exhibit 8.1 – Form of Dechert Opinion

9. Item 601(b)(8) of Regulation S-K requires an opinion of counsel as to tax matters for registered offerings where the tax consequences are material to an investor and a representation as to tax consequences is set forth in the filing.

The tax opinion must address and express a firm conclusion for each material federal income tax consequence. Accordingly, please revise your tax opinion to affirmatively state that the legal conclusions contained in the material federal income tax consequences section of the prospectus constitute your opinion rather than “summaries of United States federal income tax law.” The opinion will need to be executed and delivered to the company prior to effectiveness and filed as an exhibit to the S-4.

Exhibit 8.2 – Form of Cooley Opinion

10. Item 601(b)(8) of Regulation S-K requires an opinion of counsel as to tax matters for registered offerings where the tax consequences are material to an investor and a representation as to tax consequences is set forth in the filing. The tax opinion must address and express a firm conclusion for each material federal income tax consequence. Accordingly, please revise your tax opinion to affirmatively state that the legal conclusions contained in the material federal income tax consequences section of the prospectus constitute your opinion. The opinion will need to be executed and delivered to the company prior to effectiveness and filed as an exhibit to the S-4.

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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the

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securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

Please contact Nandini Acharya at (202) 551-3495, Daniel Greenspan at (202) 551- 3623 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey Riedler  
Assistant Director

cc: David E. Shulman, Esq.  
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