

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

June 29, 2010

Harry S. Palmin President and Chief Executive Officer Novelos Therapeutics, Inc. One Gateway Center, Suite 504 Newton, Massachusetts 02458

Re: Novelos Therapeutics, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed June 25, 2010
File No. 333-166744

Dear Mr. Palmin:

We have considered your amended registration statement and correspondence filed on June 25, 2010 to our comment letter dated May 14, 2010 and have the following comment.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comment applies to your facts and circumstances or do not believe that an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to this comment, we may have additional comments.

Form S-1

- 1. We note that you have omitted certain information from the prospectus in relation to the terms of your offering. Please revise your prospectus to include the following information:
 - The number of units to be sold in the offering;
 - The number of shares of common stock and warrants per unit;
 - The number of shares purchasable under the warrants;
 - The exercise price of the warrants; and
 - The exercise period for the warrants.

Please note that we will not be in a position to act on a request for acceleration of effectiveness until the requested information has been provided in the prospectus.

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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 all applicable Securities Act rules. 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. 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 securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Bryan Pitko at (202) 551-3203 or Suzanne Hayes at (202) 551-3675 with any questions. In this regard, please free to contact me at (202) 551-3715.

Sincerely,

Jeffrey P. Riedler Assistant Director

cc: Paul Bork
Matthew Eckert
Foley Hoag LLP
155 Seaport Boulevard
Boston, Massachusetts 02210