

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 12b-25

Commission File Number 333-119366

NOTIFICATION OF LATE FILING

☐ Form 10-K
☐ Form N-SAR

☐ Form 11-K

☐ Form 20-F

☒ Form 10-Q

For Period Ended: September 30, 2010

☐ Transition Report on Form 10-K
☐ Transition Report on Form 20-F

☐ Transition Report on Form 10-Q
☐ Transition Report on Form N-SAR

For the Transition Period Ended: _____

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the item(s) to which the notification relates: _____

PART I
REGISTRANT INFORMATION

Full name of registrant
Former name if applicable
Address of principal executive office
City, state and zip code

Novelos Therapeutics, Inc.

One Gateway Center, Suite 504
Newton, Massachusetts 02458

PART II
RULE 12b-25 (b) AND (c)

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25 (b), the following should be completed. (Check box if appropriate.)

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- (a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
 - (b) The subject annual report, semi-annual report, transition report on Form 10-K, 20-F, 11-K or Form N-SAR, or portion thereof will be filed on or before the 15th calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q, or portion thereof will be filed on or before the fifth calendar day following the prescribed due date; and
 - (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.
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**PART III
NARRATIVE**

State below in reasonable detail the reasons why Form 10-K, 11-K, 20-F, 10-Q, N-SAR or the transition report portion thereof could not be filed within the prescribed time period.

The information necessary for the timely filing of the registrant's Form 10-Q for the quarterly period ended September 30, 2010 could not be compiled and processed without undue hardship and expense to the registrant. The registrant undertakes the responsibility to file such quarterly report no later than five days after its original due date.

**PART IV
OTHER INFORMATION**

(1) Name and telephone number of person to contact in regard to this notification

Harry S. Palmin	(617) 244-1616
(Name)	(Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If the answer is no, identify report(s).

☒ Yes ☐ No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?

☐ Yes ☒ No

If so: attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

Novelos Therapeutics, Inc.
Name of Registrant as Specified in Charter

Has caused this notification to be signed on its behalf by the undersigned thereunto duly authorized.

Date: November 16, 2010

By: /s/ Harry S. Palmin
Harry S. Palmin
President and Chief Executive Officer
