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

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report: February 11, 2009
(*Date of earliest event reported*)

NOVELOS THERAPEUTICS, INC.
(*Exact name of registrant as specified in its charter*)

Delaware	**333-119366**	**04-3321804**
(State or other jurisdiction of incorporation)	*(Commission File Number)*	*(IRS Employer Identification Number)*

One Gateway Center, Suite 504
Newton, MA 02458
(*Address of principal executive offices*)

(617) 244-1616
(*Registrant's telephone number, including area code*)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 1.01 ENTRY INTO A MATERIAL DEFINITIVE AGREEMENT

Collaboration Agreement

On February 11, 2009 Novelos Therapeutics, Inc. ("Novelos or we") entered into a collaboration agreement (the "Collaboration Agreement") with Mundipharma International Corporation Limited ("Mundipharma") to develop and commercialize Licensed Products (as defined in the Collaboration Agreement), which includes Novelos' lead compound, NOV-002, in Europe and Asia/Pacific (excluding China) (the "Territory").

Under the Collaboration Agreement, Mundipharma received an exclusive license to develop, manufacture, market, sell or otherwise distribute the Licensed Products and improvements thereon in the Territory. Mundipharma will pay Novelos $2.5 million upon the launch of NOV-002 in each country, up to a maximum of $25 million. In addition, Mundipharma will make fixed sales-based payments up to an aggregate of $60 million upon the achievement of certain annual sales levels payable once the annual net sales exceed the specified thresholds.

Mundipharma will also pay as royalties to Novelos, during the term of the Collaboration Agreement, a double-digit percentage on net sales of Licensed Products in countries within the Territory where, as of the effective date thereof, Novelos holds patents on the licensed technology based upon a four-tier royalty schedule. Royalties in countries in the Territory where Novelos does not hold patents as of the effective date will be paid at 50% of the royalty rates in countries where patents are held. The royalties will be calculated based on the incremental net sales in the respective royalty tiers and shall be due on net sales in each country in the Territory where patents are held until the last patent expires in the respective country. In countries in the Territory where Novelos does not hold patents as of the effective date of the Collaboration Agreement, royalties will be due until the earlier of 15 years from the date of Agreement or the introduction of a generic in the respective country resulting in a 20% drop in Mundipharma's market share in such country.

The launch of Licensed Products, including initiation of regulatory and pricing approvals, and subsequent commercial efforts to market and sell Licensed Products in each country in the Territory will be determined by Mundipharma based on its assessment of the commercial viability of the Licensed Products, the regulatory environment and other factors. Novelos has no assurance that it will receive any amount of launch payments, fixed sales-based payments or royalties.

Under the Collaboration Agreement, Novelos is responsible for the cost and execution of development, regulatory submissions and commercialization of NOV-002 outside the Territory and Mundipharma is responsible for the cost and execution of certain development activities, all regulatory submissions and all commercialization within the Territory. In the unlikely event that Mundipharma is required to conduct an additional Phase 3 clinical trial in first-line advanced stage NSCLC in order to gain regulatory approval in Europe, Mundipharma will be entitled to recover the full cost of such trial by reducing milestone, fixed sales-based payments and royalty payments to Novelos by up to 50% of the payments owed until Mundipharma recovers the full costs of such trial. In order for Mundipharma or Novelos to access data or intellectual property related to Independent Trials (as defined in the Collaboration Agreement), they must pay the sponsoring party 50% of the cost of such trial.

For countries in which patents are held, the Collaboration Agreement expires on a country-by-country basis within the Territory on the earlier of (1) expiration of the last applicable Novelos patent within the country or (2) the determination that any patents within the country are invalid, obvious or otherwise unenforceable. For countries in which no patents are held, the Agreement expires 15 years from effective date or upon generic product competition in the country that results in a 20% drop in Mundipharma's market share. Novelos may terminate the Collaboration Agreement upon breach or default by Mundipharma. Mundipharma may terminate the Collaboration Agreement upon breach or default, filing of voluntary or involuntary bankruptcy by Novelos, the termination of certain agreements with companies associated with the originators of the licensed technology, or 30-day notice for no reason. If any regulatory approval within the Territory is suspended as a result of issues related to the safety of the Licensed Products, then Mundipharma's obligations under the Collaboration Agreement will be suspended until the regulatory approval is reinstated. If that reinstatement does not occur within twelve months of the suspension, then Mundipharma may terminate the Collaboration Agreement.

The foregoing summary descriptions of the Collaboration Agreement do not purport to be complete and are qualified in their entirety by reference to the Collaboration Agreement.

Securities Purchase Agreement

Concurrently with the execution of the Collaboration Agreement, we sold to Purdue Pharma, L.P. ("Purdue") an independent associated company of Mundipharma, 200 shares of a newly created series of our preferred stock, designated "Series E Convertible Preferred Stock", par value $0.00001 per share (the "Series E Preferred Stock") and a warrant to purchase 9,230,769 shares of our common stock for an aggregate purchase price of $10,000,000 (the "Series E Financing"). Pursuant to the related securities purchase agreement with Purdue (the "Purchase Agreement"), Purdue will have the right to designate one observer to attend all meetings of our Board of Directors, committees thereof and access to all information made available to members of the Board. This right shall last until such time as Purdue no longer holds at least one-half of the Series E Preferred Stock issued to them at closing.

Series E Preferred Stock

The shares of Series E Preferred Stock have a stated value of $50,000 per share and are convertible into shares of our common stock any time after issuance at the option of the holder at $0.65 per share of common stock for an aggregate of 15,384,615 shares of common stock. If there is an effective registration statement covering the shares of common stock underlying the Series E Preferred Stock and the VWAP, as defined in the Series E Certificate of Designations, of our common stock exceeds $2.00 for 20 consecutive trading days, then the outstanding Series E Preferred Stock will automatically convert into common stock at the conversion price then in effect. The conversion price will be subject to adjustment for stock dividends, stock splits or similar capital reorganizations.

The Series E Preferred Stock will have an annual dividend rate of 9%, payable semi-annually on June 30 and December 31. Such dividends may be paid in cash, in shares of Series E Preferred Stock or in registered shares of our common stock at our option, subject to certain conditions.

For as long as any shares of Series E Preferred Stock remain outstanding, we will be prohibited from (i) paying dividends to our common stockholders, (ii) amending our certificate of incorporation, (iii) issuing any equity security or any security convertible into or exercisable for any equity security at a price of $0.65 or less or with rights senior to the Series E Preferred Stock (except for certain exempted issuances), (iv) increasing the number of shares of Series E Preferred Stock or issuing any additional shares of Series E Preferred Stock, (v) selling or otherwise disposing of all or substantially all our assets or intellectual property or entering into a merger or consolidation with another company unless we are the surviving corporation, the Series E Preferred Stock remains outstanding and there are no changes to the rights and preferences of the Series E Preferred Stock, (vi) redeeming or repurchasing any capital stock other than the Series E Preferred Stock, (vii) incurring any new debt for borrowed money in excess of $500,000 and (viii) changing the number of our directors.

Common Stock Purchase Warrant

The common stock purchase warrant is exercisable for an aggregate of 9,230,769 shares of our common stock at an exercise price of $0.65. The warrant expires on December 31, 2015. The warrant exercise price and/or the common stock issuable pursuant to such warrant will be subject to adjustment for stock dividends, stock splits or similar capital reorganizations so that the rights of the warrant holders after such event will be equivalent to the rights of warrant holders prior to such event.

Registration Rights Agreement

Simultaneous with the execution of the Securities Purchase Agreement, we entered into a registration rights agreement (the "Registration Rights Agreement") with Purdue and the holders (the "Series D Investors) of our existing Series D convertible preferred stock (the "Series D Preferred Stock"). The Registration Rights Agreement requires us to file with the Securities and Exchange Commission no later than 5 business days following the six-month anniversary of the execution of the Securities Purchase Agreement, a registration statement covering the resale of (i) a number of shares of common stock equal to 100% of the shares issuable upon conversion of the Series E Preferred Stock (excluding 12,000,000 shares of common stock issuable upon conversion of the Series E Preferred Stock issued in exchange for shares of outstanding Series D Preferred Stock as described below that were included on a prior registration statement), (ii) 9,230,769 shares of common stock issuable upon exercise of the warrants issued to Purdue and (iii) 11,865,381 shares of common stock issuable upon exercise of warrants held by the Series D Investors. We will be required to use our best efforts to have the registration statement declared effective and keep the registration statement continuously effective under the Securities Act until the earlier of the date when all the registrable securities covered by the registration statement have been sold or the second anniversary of the closing. In the event we fail to file the registration statement within the timeframe specified by the Registration Rights Agreement, we will be required to pay to Purdue and the Series D Investors liquidated damages equal to 1.5% per month (pro-rated on a daily basis for any period of less than a full month) of the aggregate purchase price of the Series E Preferred Stock and warrants until we file the delinquent registration statement. We will be allowed to suspend the use of the registration statement for not more than 15 consecutive days or for a total of not more than 30 days in any 12 month period. The Registration Rights Agreement replaces a prior agreement dated April 11, 2008 between Novelos and the Series D Investors.

Agreement to Exchange and Consent and Amendments to Prior Agreements with Series D Investors

We also entered into a Consent and Agreement to Exchange (the "Exchange Agreement") with the Series D Investors. Pursuant to the Exchange Agreement, the Series D Investors exchanged all 413.5 outstanding shares of Series D Preferred Stock and accumulated but unpaid dividends thereon for 445.442875 shares of Series E Preferred Stock. The rights and preferences of the Series E Preferred Stock are substantially the same as the Series D Preferred Stock. In addition, the Series D Investors waived liquidated damages that had accrued through date of the Exchange Agreement as a result of our failure to file a registration statement covering the shares of common stock underlying the Series D Preferred Stock and warrants not covered by an existing registration statement. In connection with the execution of the Exchange Agreement, the warrants held by the Series D Investors were amended to extend the expiration of the warrants to December 31, 2015 and to remove the forced exercise provision. Also, we entered into an amendment to the registration rights agreement dated May 2, 2007 with the Series D Investors to revise the definition of registrable securities under the agreement refer to Series E Preferred Stock.

Advisor Fees

Ferghana Partners, Inc. received a cash fee equal to seven percent (7%) of the gross proceeds from the sale of Series E Preferred Stock and Common Stock Purchase Warrants to Purdue. Ferghana will also receive cash fees equal to six percent (6%) of all payments to Novelos by Mundipharma under the Collaboration Agreement other than royalties on net sales.

ITEM 3.02 UNREGISTERED SALES OF EQUITY SECURITIES

As described in Item 1.01 above, on February 11, 2009 we sold 200 shares of Series E Preferred Stock, receiving aggregate gross proceeds of $10 million.

This sale was exempt from registration under Section 4(2) of the Securities Act of 1933, as amended.

ITEM 5.03 AMENDMENTS TO ARTICLES OF INCORPORATION OR BYLAWS

Effective February 11, 2009 our certificate of incorporation was amended to eliminate the Certificate of Designations, Preferences and Rights of Series B Convertible Preferred Stock. There had not been any shares of Series B preferred stock outstanding since April 2008.

Effective February 11, 2009 our certificate of incorporation was amended to include the Certificate of Designations, Preferences and Rights of Series E Convertible Preferred Stock. A summary of the terms of Series E Convertible Preferred Stock is included in Item 1.01 of this filing and is incorporated by reference.

In connection with the Series E Financing and Exchange Agreement, the holders of our Series C preferred stock consented and agreed that the Series E preferred stock would be senior to the Series C Preferred Stock with respect to the payment of dividends and liquidation preference.

Effective February 12, 2009 our certificate of incorporation was amended to eliminate the Certificate of Designations, Preferences and Rights of Series D Convertible Preferred Stock. All outstanding shares of Series D preferred stock were exchanged effective upon the closing of the Series E Financing.

ITEM 7.01 REGULATION FD DISCLOSURE

A copy of the press release issued by us on February 11, 2009 announcing the transactions described in Item 1.01 is filed as Exhibit 99.1 and is incorporated by reference.

ITEM 9.01 FINANCIAL STATEMENTS AND EXHIBITS

(c) Exhibits

Number	Title
4.1	Certificate of Designations, Preferences and Rights of Series E Convertible Preferred Stock of Novelos Therapeutics, Inc.
4.2	Common Stock Purchase Warrant
4.3	Certificate of Elimination of Series B Convertible Preferred Stock
4.4	Certificate of Elimination of Series D Convertible Preferred Stock
10.1	Securities Purchase Agreement dated February 11, 2009
10.2	Registration Rights Agreement dated February 11, 2009
10.3	Series D Preferred Stock Consent and Agreement to Exchange dated February 10, 2009
10.4	Warrant Amendment Agreements dated February 11, 2009
10.5	Amendment No. 2 to Registration Rights Agreement dated February 11, 2009
99.1	Press Release dated February 11, 2009 entitled “Novelos Therapeutics and Mundipharma Sign Exclusive Collaboration in Europe and Japan”

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: February 18, 2009

NOVELOS THERAPEUTICS, INC.

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

EXHIBIT INDEX

Number	Title
4.1	Certificate of Designations, Preferences and Rights of Series E Convertible Preferred Stock of Novelos Therapeutics, Inc.
4.2	Common Stock Purchase Warrant
4.3	Certificate of Elimination of Series B Convertible Preferred Stock
4.4	Certificate of Elimination of Series D Convertible Preferred Stock
10.1	Securities Purchase Agreement dated February 11, 2009
10.2	Registration Rights Agreement dated February 11, 2009
10.3	Series D Preferred Stock Consent and Agreement to Exchange dated February 10, 2009
10.4	Warrant Amendment Agreements dated February 11, 2009
10.5	Amendment No. 2 to Registration Rights Agreement dated February 11, 2009
99.1	Press Release dated February 11, 2009 entitled “Novelos Therapeutics and Mundipharma Sign Exclusive Collaboration in Europe and Japan”

CERTIFICATE OF DESIGNATIONS, PREFERENCES AND RIGHTS

OF

SERIES E CONVERTIBLE PREFERRED STOCK

OF

NOVELOS THERAPEUTICS, INC.

(Pursuant to Section 151 of the
Delaware General Corporation Law)

Novelos Therapeutics, Inc. (the "*Corporation*"), a corporation organized and existing under the laws of the State of Delaware, hereby certifies that, pursuant to authority conferred on its Board of Directors (the "*Board*") by the Certificate of Incorporation of the Corporation, the following resolution was adopted by the Board at a meeting of the Board duly held on January 26, 2009, which resolution remains in full force and effect on the date hereof:

RESOLVED, that there is hereby established a series of the Corporation's authorized Preferred Stock (the "*Preferred Stock*") having a par value of $0.00001 per share, which series shall be designated as "Series E Convertible Preferred Stock" (the "*Series E Preferred Stock*") and shall consist of Seven Hundred Thirty Five (735) shares. The shares of Series E Preferred Stock shall have the voting powers, designations, preferences and other special rights, and qualifications, limitations and restrictions thereof set forth below:

1. ***Certain Definitions.*** As used herein, the following terms shall have the following meanings:

(a) "*Affiliate*" shall mean, with respect to any Person, any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "*control*," when used with respect to any Person, means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "*controlling*" and "*controlled*" have meanings correlative to the foregoing.

(b) "*Associated Company*" means, as to Purdue, any person, firm, trust, partnership, corporation, company or other entity or combination thereof, which directly or indirectly (i) controls (ii) is controlled by or (iii) is under common control with Purdue. The terms "control" and "controlled" mean ownership of 50% or more, including ownership by trusts with substantially the same beneficial interests, of the voting and equity rights of such person, firm, trust, partnership, corporation, company or other entity or combination thereof or the power to direct the management of such person, firm, trust, partnership, corporation, company or other entity or combination thereof.

(c) "*Business Day*" shall mean a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business.

(d) "*Fair Market Value*" shall mean, with respect to any listed security, its Market Price, and with respect to any property or assets other than cash or listed securities, the fair value thereof determined in good faith by the Board and the Requisite Holders.

(e) "*Initial Issue Date*" shall mean the date that shares of Series E Preferred Stock are first issued by the Corporation.

(f) "*Investors*" shall mean, collectively, the Lead Series E Preferred Investors (as defined below) and Knoll Special Opportunities Fund II Master Fund, Ltd., a Cayman Islands investment company, Europa International, Inc., a Delaware corporation, and Hunt-BioVentures, L.P., a Delaware limited partnership.

(g) "*Lead Series E Preferred Investors*" shall mean, collectively, Xmark Opportunity Fund, L.P., a Delaware limited partnership ("*Xmark LP*"), Xmark Opportunity Fund, Ltd., a Cayman Islands exempted company ("*Xmark Ltd*"), Xmark JV Investment Partners, LLC, a Delaware limited liability company ("*Xmark LLC*"), Caduceus Master Fund Limited, a Bermuda corporation ("*Caduceus Master*"), Caduceus Capital II, L.P., a Delaware limited partnership ("*Caduceus Capital*"), Summer Street Life Sciences Hedge Fund Investors, LLC a Delaware limited liability company ("*Summer Street*"), UBS Eucalyptus Fund, L.L.C., a Delaware registered investment company ("*UBS Eucalyptus*"), PW Eucalyptus Fund, Ltd., a Cayman Islands investment company ("*PW Eucalyptus")*and Purdue Pharma L.P., a Delaware limited partnership (or any of its successors or assigns) ("*Purdue*").

(h) "*Market Price*", as of a particular date (the "*Valuation Date*"), shall mean the following with respect to any class of listed securities: (A) if such security is then listed on a national stock exchange, the Market Price shall be the closing sale price of one share of such security on such exchange on the last trading day prior to the Valuation Date, provided that if such security has not traded in the prior ten (10) trading sessions, the Market Price shall be the average closing price of such security in the most recent ten (10) trading sessions during which such security has traded; (B) if such security is then included in the OTC Bulletin Board, the Market Price shall be the closing sale price of one share of such security on the OTC Bulletin Board on the last trading day prior to the Valuation Date or, if no such closing sale price is available, the average of the high bid and the low ask price quoted on the OTC Bulletin Board as of the end of the last trading day prior to the Valuation Date, provided that if such stock has not traded in the prior ten (10) trading sessions, the Market Price shall be the average closing price of one share of such security in the most recent ten (10) trading sessions during which such security has traded; or (C) if such security is then included in the "pink sheets," the Market Price shall be the closing sale price of one share of such security on the "pink sheets" on the last trading day prior to the Valuation Date or, if no such closing sale price is available, the average of the high bid and the low ask price quoted on the "pink sheets" as of the end of the last trading day prior to the Valuation Date, provided that if such stock has not traded in the prior ten (10) trading sessions, the Market Price shall be the average closing price of one share of such security in the most recent ten (10) trading sessions during which such security has traded.

(i) "*OrbiMed Entities*" shall mean, collectively Caduceus Master, Caduceus Capital, Summer Street, UBS Eucalyptus and PW Eucalyptus or any of their respective successors or assigns.

(j) "*Person*" shall mean any individual, partnership, company, limited liability company, joint venture, association, joint-stock company, trust, unincorporated organization, government or agency or political subdivision thereof, or other entity.

(k) "*Principal Market*" means the Trading Market on which the Common Stock is primarily listed on and quoted for trading, which, as of the Initial Issue Date means the OTC Bulletin Board ("*OTCBB*").

(l) "*Requisite Holders*" shall mean the holders of at least a majority of the then outstanding shares of Preferred Stock which majority must include (i) the Xmark Entities, provided such collectively Xmark Entities hold at least one-third of the Series E Preferred Stock issued to the Xmark Entities (appropriately adjusted for any stock dividend, stock split, reverse stock split, reclassification, stock combination or other recapitalization occurring after the date hereof), (ii) the OrbiMed Entities, provided such OrbiMed Entities collectively hold at least one-third of the Series E Preferred Stock issued to the OrbiMed Entities (appropriately adjusted for any stock dividend, stock split, reverse stock split, reclassification, stock combination or other recapitalization occurring after the date hereof) , (iii) Purdue, provided that Purdue or its Associated Companies holds at least one-half of the Series E Preferred Stock issued to Purdue (appropriately adjusted for any stock dividend, stock split, reverse stock split, reclassification, stock combination or other recapitalization occurring after the date hereof).

(m) "*SEC*" shall mean the U.S. Securities and Exchange Commission.

(n) "*Series E Stated Value*" shall mean, with respect to each share of Series E Preferred Stock, Fifty Thousand Dollars ($50,000), which Series E Stated Value shall be subject to appropriate adjustment from time to time in the event of any stock dividend, stock split, reverse stock split, reclassification, stock combination or other recapitalization affecting the Series E Preferred Stock.

(o) "*Trading Day*" means any day on which the Common Stock is purchased and sold on the Principal Market.

(p) "*VWAP*" on a Trading Day means the volume weighted average price of the Common Stock for such Trading Day on the Principal Market as reported by Bloomberg Financial Markets or, if Bloomberg Financial Markets is not then reporting such prices, by a comparable reporting service of national reputation selected by the Requisite Holders and reasonably satisfactory to the Corporation. If VWAP cannot be calculated for the Common Stock on such Trading Day on any of the foregoing bases, then the Corporation shall submit such calculation to an independent investment banking firm of national reputation reasonably acceptable to the Requisite Holders, and shall cause such investment banking firm to perform such determination and notify the Corporation and the Requisite Holders of the results of determination no later than two (2) Business Days from the time such calculation was submitted to it by the Corporation. All such determinations shall be appropriately adjusted for any stock dividend, stock split or other similar transaction during such period.

(q) "*Xmark Entities*" shall mean, collectively, Xmark LP, Xmark Ltd. and Xmark LLC or any of their respective successors or assigns.

2. ***Designation; Preference and Ranking*****.** The Series E Preferred Stock shall consist of Seven Hundred Thirty Five (735) shares. The preferences of each share of Series E Preferred Stock with respect to dividend payments and distributions of the Corporation's assets upon voluntary or involuntary liquidation, dissolution or winding up of the Corporation shall be equal to the preferences of every other share of Series E Preferred Stock from time to time outstanding in every respect. Notwithstanding the terms and conditions of any series of Preferred Stock now or hereafter existing providing that the Series E Preferred Stock shall rank junior or senior thereto, the Series E Preferred Stock shall rank senior to all other outstanding series of Preferred Stock and senior to the Common Stock, par value $0.00001 per share (the "*Common Stock*"), of the Corporation as to the payment of dividends and the distribution of assets upon voluntary or involuntary liquidation, dissolution or winding up of the Corporation. No other equity or equity-linked securities shall be permitted to rank pari passu with the Series E Preferred Stock without express written approval of the Requisite Holders.

3. ***Dividend Rights***. (a) Each holder of Series E Preferred Stock, in preference and priority to the holders of all other classes of stock, shall be entitled to receive, with respect to each share of Series E Preferred Stock then outstanding and held by such holder of Series E Preferred Stock, dividends, commencing from the date of issuance of such share of Series E Preferred Stock, at the rate of nine percent (9%) per annum of the Series E Stated Value (the "*Series E Preferred Dividends*"). The Series E Preferred Dividends shall be cumulative, whether or not earned or declared, and shall be paid semi-annually in arrears beginning on June 30, 2009 and then on the last day of June and December in each year. The Series E Preferred Dividends shall be paid to each holder of Series E Preferred Stock in (1) cash, out of legally available funds; (2) at the Corporation's election, in Common Stock, but only if the Common Stock underlying such dividends are, on the payment date, subject to an effective Registration Statement (as defined in the Registration Rights Agreement), based on the lesser of (x) the Conversion Price (as defined below) then in effect, and (y) the Fair Market Value of the Common Stock on the Business Day preceding the payment date or (3) at the Corporation's election, in Series E Preferred Stock, based on the Series E Stated Value. If shares of Series E Preferred Stock are transferred in between the scheduled Series E Preferred Stock dividend payment dates, each of the transferor and transferee of the Series E Preferred Stock are entitled to their respective pro rata portion of such Series E Preferred Dividends as of the date of transfer. Any election by the Corporation to pay dividends in cash or shares of Common Stock shall be made uniformly with respect to all outstanding shares of Series E Preferred Stock for a given dividend period.

(b) No dividends shall be paid on any Common Stock of the Corporation or any other capital stock of the Corporation during any fiscal year of the Corporation until all Series E Preferred Dividends (with respect to the current fiscal year and all prior fiscal years) shall have been paid, or declared and set apart for payment, when due to the holders of Series E Preferred Stock.

(c) In the event that the Corporation shall at any time pay a dividend on the Common Stock (other than a dividend payable solely in shares of Common Stock) or any other class or series of capital stock of the Corporation (except for Series C Preferred Stock), the Corporation shall, at the same time, pay to each holder of Series E Preferred Stock a dividend equal to the dividend that would have been payable to such holder if the shares of Series E Preferred Stock held by such holder had been converted into Common Stock on the date of determination of holders of Common Stock entitled to receive such dividends.

4. ***Liquidation Rights***. (a) In the event of any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, the holders of Series E Preferred Stock shall be entitled to receive, on a pro rata basis, prior and in preference to any distribution of any of the assets or surplus funds of the Corporation to the holders of the Common Stock, or any other class of capital stock of the Corporation, an amount equal to the Series E Stated Value for each share of Series E Preferred Stock then held by such holder, plus an amount equal to all declared but unpaid dividends, and all accrued but unpaid dividends set forth in Section 3(a) above, on each such share of Series E Preferred Stock (the "*Liquidation Preference Payment*"). If, upon the occurrence of any such liquidation, dissolution or winding up of the Corporation, the assets and funds to be distributed among the holders of Series E Preferred Stock shall be insufficient to permit the payment to such holders of the full Liquidation Preference Payment, then the entire assets and funds of the Corporation legally available for distribution shall be distributed ratably among the holders of Series E Preferred Stock in proportion to the Liquidation Preference Payment each such holder is entitled to receive, and no assets of the Corporation shall be distributed to the holders of the Common Stock or any other class or series of capital stock of the Corporation in respect of such Common Stock or such other stock unless and until the Liquidation Preference Payment payable to all holders of the Series E Preferred Stock has been paid in full.

(b) After payment of the full Liquidation Preference Payment to the holders of the Series E Preferred Stock as set forth in Section 4(a) above and subject to any other distribution that may be required with respect to any future series of Preferred Stock that may from time to time come into existence, the remaining assets and funds of the Corporation, if any, available for distribution to stockholders shall be distributed (i) in connection with a Liquidation Event pursuant to Section 4(c)(1) below, ratably among the holders of the Series E Preferred Stock, any other class or series of capital stock that participates with the Common Stock in the distribution of assets upon such Liquidation Event and the Common Stock, with the holders of the Series E Preferred Stock deemed to hold that number of shares of Common Stock into which such shares of Series E Preferred Stock are then convertible and (ii) in connection with a Liquidation Event pursuant to Sections 4(c)(2)-(5) below, ratably among the holders of Common Stock.

(c) The Requisite Holders, by written notice to the Corporation at least two (2) Business Days prior to the effective date thereof, may elect to treat any of the following transactions as a dissolution or winding up of the Corporation (each a "*Liquidation Event*") for the purposes of this Section 4: (1) any dissolution, winding up or liquidation of the Corporation; (2) any sale, lease or other transfer of substantially all of the Corporation's assets, in one or a series of transactions; (3) any merger, consolidation or similar business combination transaction, in which the Corporation is not the survivor or, if the Corporation is the survivor, then only if the holders of a majority of the Common Stock outstanding immediately before such transaction cease to own a majority of the Common Stock immediately after the transaction; (4) in one or a series of events, any change in the majority of the members of the Corporation's Board of Directors (the "*Board*"), unless the replacement directors were nominated by the majority of the Board immediately preceding such change; and (5) if any person or entity (other than the holders of Series E Preferred Stock) shall acquire or become the "beneficial owner" (as that term is defined in Rule 13d-3 of the Exchange Act) of more than 50% of the Corporation's outstanding stock.

(d) Distributions Other than Cash. Whenever the distributions provided for in this Section 4 shall be payable in property other than cash, the value of such distribution shall be the Fair Market Value thereof. All distributions (including distributions other than cash) made hereunder shall be made pro rata to the holders of Series E Preferred Stock, based on the number of shares of Series E Preferred Stock held by each such holder.

(e) Right to Convert. Nothing in this Section 4 shall affect in any way the right of each holder of Series E Preferred Stock to convert such shares at any time and from time to time into Common Stock in accordance with Section 6 hereof prior to the Liquidation Event.

5. ***Voting Rights; Protective Provisions; Covenants***.

(a) Except as otherwise provided herein or as required by applicable law, the holders of Series E Preferred Stock shall be entitled to vote on all matters on which the holders of Common Stock shall be entitled to vote, in the same manner and with the same effect as the holders of Common Stock, voting together with the holders of Common Stock as a single class. For this purpose, the holders of Series E Preferred Stock shall be given notice of any meeting of stockholders as to which the holders of Common Stock are given notice in accordance with the by-laws of the Corporation. As to any matter on which the holders of Series E Preferred Stock shall be entitled to vote, each holder of Series E Preferred Stock shall have a number of votes per share of Series E Preferred Stock held of record by such holder on the record date for the meeting of stockholders, if such matter is subject to a vote at a meeting of stockholders, or on the effective date of any written consent, if such matter is subject to a written consent of the stockholders without a meeting of stockholders, equal to the number of shares of Common Stock into which such share of Series E Preferred Stock is then convertible on such record date or effective date, as the case may be, in accordance with Section 6 hereof (subject to the limitations on conversion set forth in Sections 6(l) below).

(b) So long as all or any portion of the Series E Preferred Stock remain outstanding, without the prior written consent of the Requisite Holders, the Corporation shall not, directly or indirectly, take any of the following actions or agree to take any of the following actions:

(1) amend, alter or repeal (whether by merger, consolidation or otherwise) any provision of the Corporation's certificate of incorporation or the bylaws;

(2) create or authorize the creation of or issue any equity security, or any security convertible into or exercisable for any equity security, unless the per share price of such securities is equal to or exceeds $0.65 in cash and such securities rank junior to the Series E Preferred Stock; provided that the Company may issue shares of Common Stock or options to employees, consultants, officers or directors of the Company pursuant to any stock or option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose;

(3) increase the number of authorized shares of Series E Preferred Stock or authorize the issuance of or issue any shares of Series E Preferred Stock (other than in connection with the payment of Series E Preferred Dividends in accordance with Section 3 hereof);

(4) sell, lease, convey, license or otherwise grant any rights with respect to, all or substantially all of its assets (and in the case of licensing, any material intellectual property) or business of the Corporation and shall not effect any merger or consolidation with any other company unless as a result thereof and after giving effect thereto (a) the Corporation shall be the surviving corporation, (b) the Series E Preferred Stock shall continue to be outstanding, (c) there shall be no change in the preference, privileges or other rights and restrictions with respect to the Series E Preferred Stock and (d) there shall not be created or thereafter exist as a result of thereof any new class of shares having preference over the Series E Preferred Stock with respect to dividends, distribution of assets or rights upon liquidation;

(5) except for a declaration or payment of dividends on the Series E Preferred Stock and the Series C Preferred Stock (at such time as all accrued and unpaid dividends on shares of Series E Preferred Stock then due have been paid), the Corporation shall not declare or pay any dividends on any common stock, preferred stock or other capital stock of the Corporation;

(6) except for a redemption or repurchase of the Series E Preferred Stock or of the Warrants issued pursuant to a Securities Purchase Agreement dated April 12, 2007 as amended May 2, 2007, issued pursuant to a Securities Purchase Agreement dated March 26, 2008, as amended April 9, 2008 and issued pursuant to a Securities Purchase Agreement dated February 11, 2009, the Corporation shall not redeem or repurchase any of its capital stock (or security exercisable, convertible or exchangeable for any of its capital stock), except relating to settlement with departing employees pursuant to written employment agreements in effect on the Initial Issue Date;

(7) incur any debt for borrowed money in excess of $500,000; and

(8) change the number of directors which constitutes the Board of Directors.

6. ***Conversion*****.** The holders of shares of Series E Preferred Stock shall have the following conversion rights:

(a) Optional Conversion. Subject to the terms and conditions of this Section 6, the holder of any share or shares of Series E Preferred Stock shall have the right, at its option at any time, to convert any such shares of Series E Preferred Stock into such number of fully paid and nonassessable shares of Common Stock as is obtained by: (i) multiplying the number of shares of Series E Preferred Stock to be converted by the Series E Stated Value and adding to such product the amount of any accrued but unpaid dividends with respect to such shares of Series E Preferred Stock to be converted; and (ii) dividing the result obtained pursuant to clause (i) above by the Series E Conversion Price then in effect.

(b) Mandatory Conversion. Subject to the terms and conditions of this Section 6, if the Registration Statement covering the resale of the shares of Common Stock underlying all of the Series E Preferred Stock is declared effective by the SEC, and is then effective and the daily VWAP of the Common Stock for twenty (20) consecutive trading days exceeds $2.00 per share (subject to appropriate adjustment from time to time in the event of any stock dividend, stock split, reverse stock split, reclassification, stock combination or other recapitalization affecting the Common Stock), then the outstanding Series E Preferred Stock shall automatically convert, together with accrued dividends, into Common Stock at the Conversion Price then in effect.

(c) The "*Series E Conversion Price*" shall initially be $0.65, and shall be subject to adjustment from time to time in accordance with the provisions of this Section 6.

(d) Conversion Procedures:

(1) Optional. The rights of conversion set forth in this Section 6 shall be exercised by any holder of Series E Preferred Stock by giving written notice to the Corporation that such holder elects to convert a stated number of shares of Series E Preferred Stock into Common Stock (the "*Optional Conversion Notice*") and by surrender of a certificate or certificates for the shares of Series E Preferred Stock so to be converted (or, in lieu thereof, by delivery of an appropriate lost stock affidavit in the event such certificate or certificates have been lost or destroyed) to the Corporation at its principal office (or such other office or agency of the Corporation as the Corporation may designate by notice in writing to the holders of Series E Preferred Stock) at any time on the date set forth in such notice (which date shall not be earlier than the Corporation's receipt of such notice), together with a statement of the name or names (with address) in which the certificate or certificates for shares of Common Stock shall be issued.

(2) Mandatory. Upon the occurrence of the events described in Section 6(b), the Corporation shall promptly, but not later than five (5) Business Days thereof notify the Corporation's transfer agent of such events ("*Mandatory Conversion Notice*") which notice shall identify the Conversion Price then in effect and direct the Corporation's transfer agent to send certificates representing shares of Common Stock issued upon conversion to the holders of Series E Preferred Stock upon surrender of the certificates for shares of Series E Preferred Stock. The Corporation shall promptly provide a copy of such Mandatory Conversion Notice to each holder of Series E Preferred Stock within one Business Day of the occurrence of the events described in Section 6(b). The Mandatory Conversion Notice shall state the Conversion Price then in effect and the address for the Corporation's transfer agent to send the new Common Stock upon surrender of the Series E Preferred Stock certificates to the Corporation's transfer agent and the address of the Company's transfer agent for the holder to send its Series E Preferred Stock certificate(s). Immediately upon the issuance of the Mandatory Conversion Notice to the Corporation's transfer agent as described in this Section 6(d)(2), all shares of Series E Preferred Stock shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate, except only the right of the holders thereof, upon surrender of their certificate or certificates therefor, to receive certificates representing the number of shares of Common Stock into which such Series E Preferred Stock has been converted.

(e) Promptly after receipt of the written notices referred to in Section 6(d)(I) above or the issuance of the Mandatory Conversion Notice, as applicable, and surrender of the certificate or certificates for the share or shares of Series E Preferred Stock to be converted (or, in lieu thereof, by delivery of an appropriate lost stock affidavit in the event such certificate or certificates have been lost or destroyed), but in no event more than three (3) Business Days thereafter, the Corporation shall issue and deliver, or cause to be issued and delivered, to the holder of Series E Preferred Stock, registered in such name or names as such holder may direct in writing, a certificate or certificates for the number of whole shares of Common Stock issuable upon the conversion of such share or shares of Series E Preferred Stock. To the extent permitted by law, such optional conversion shall be deemed to have been effected, and the Series E Conversion Price shall be determined, as of the close of business on the date on which such Optional Conversion Notice shall have been received by the Corporation and the certificate or certificates for such share or shares of Series E Preferred Stock shall have been surrendered as aforesaid (or, in lieu thereof, an appropriate lost stock affidavit has been delivered to the Corporation). Upon a mandatory conversion, such conversion shall be deemed to have been effected, and the Series E Conversion Price shall be determined, as of the close of business on the date on which the conditions in Section 6(b) have been satisfied. At such time of conversions, the rights of the holder of such share or shares of Series E Preferred Stock shall cease with respect to the shares of Series E Preferred Stock being converted, and the Person or Persons in whose name or names any certificate or certificates for shares of Common Stock shall be issuable upon such conversion shall be deemed to have become the holder or holders of record of the shares represented thereby.

(f) If the Company shall fail for any reason or for no reason to issue to a holder the applicable certificate or certificates within three (3) Business Days of receipt of documents necessary for the conversions set forth above (the "*Deadline Date*"), then, in addition to all other remedies available to such holder, if on or after the Business Day immediately following such three (3) Business Day period, such holder or holder's broker, acting on behalf of such holder, purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the holder of shares of Common Stock that such holder anticipated receiving from the Company upon a conversion of holder's Series E Preferred tock (a "*Buy-In*"), then the Company shall, within three (3) Business Days after such holder's request and in such holder's sole discretion, either (i) pay cash to the holder in an amount equal to such holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased (the "*Buy-In Price*"), at which point the Company's obligation to deliver such certificate (and to issue such shares of Common Stock) shall terminate, or (ii) promptly honor its obligation to deliver to such holder a certificate or certificates representing such shares of Common Stock and pay cash to the holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (a) such number of shares of Common Stock, times (b) the closing bid price on the Deadline Date.

(g) No fractional shares shall be issued upon any conversion of shares of Series E Preferred Stock into Common Stock. If any fractional share of Common Stock would, except for the provisions of the first sentence of this Section 6(g), be delivered upon such conversion, the Corporation, in lieu of delivering such fractional share, shall pay to the holder surrendering the shares of Series E Preferred Stock for conversion an amount in cash equal to the Market Price of such fractional share of Common Stock. In case the number of shares of Series E Preferred Stock represented by the certificate or certificates surrendered pursuant to Section 6(d) above exceeds the number of shares converted, the Corporation shall, upon such conversion, execute and deliver to the holder, at the expense of the Corporation, a new certificate or certificates for the number of shares of Series E Preferred Stock represented by the certificate or certificates surrendered which are not to be converted.

(h) If, at any time after the Initial Issue Date, the number of shares of Common Stock outstanding is increased by a stock dividend payable in shares of Common Stock or by a subdivision or split-up of shares of Common Stock, then, following the record date for the determination of holders of Common Stock entitled to receive such stock dividend, or to be affected by such subdivision or split-up, the Series E Conversion Price shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of Series E Preferred Stock shall be increased in proportion to such increase in outstanding shares.

(i) If, at any time after the Initial Issue Date, the number of shares of Common Stock outstanding is decreased by a combination of the outstanding shares of Common Stock into a smaller number of shares of Common Stock, then, following the record date to determine shares affected by such combination, the Series E Conversion Price shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of Series E Preferred Stock shall be decreased in proportion to such decrease in outstanding shares.

(j) If the Common Stock issuable upon the conversion of the Series E Preferred Stock shall be changed into the same or different number of shares of any class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination or shares of stock dividend provided for elsewhere in this Section 6, or the sale of all or substantially all of the Corporation's properties and assets to any other Person), then and in each such event the holder of each share of Series E Preferred Stock shall have the right thereafter to convert such share into the kind and amount of shares of stock and other securities and property receivable upon such reorganization, reclassification or other change by holders of the number of shares of Common Stock into which such shares of Series E Preferred Stock might have been converted, as the case may be, immediately prior to such reorganization, reclassification or change, all subject to further adjustment as provided herein.

(k) If at any time or from time to time there shall be a merger or consolidation of the Corporation with or into another corporation, or the sale of all or substantially all of the Corporation's properties and assets to any other Person, then, as a part of such merger, or consolidation or sale, provision shall be made so that holders of Series E Preferred Stock, as the case may be, shall thereafter be entitled to receive upon conversion of the Series E Preferred Stock, the number of shares of stock or other securities or property of the Corporation, or of the successor corporation resulting from such merger, consolidation or sale, to which such holder would have been entitled if such holder had converted its shares of Series E Preferred Stock immediately prior to such merger, consolidation or sale, without regard to any conversion limitation specified in Section 6(j). In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 6 with respect to the rights of the holders of the Series E Preferred Stock after the merger, consolidation or sale to the end that the provisions of this Section 6, including adjustment of the Series E Conversion Price then in effect for the Series E Preferred Stock and the number of shares issuable upon conversion of the Series E Preferred Stock) shall be applicable after that event in as nearly equivalent a manner as may be practicable.

(l) (I) Except as to a mandatory conversion contemplated by Section 6(b) above, notwithstanding anything herein to the contrary, in no event shall a holder of Series E Preferred Stock be entitled to convert any portion of the Series E Preferred Stock so held by such holder in excess of that portion upon conversion of which the sum of (1) the number of shares of Common Stock beneficially owned by such holder and its Affiliates or Associated Companies (other than shares of Common Stock which may be deemed beneficially owned through ownership of the unconverted shares of Series E Preferred Stock or the unexercised or unconverted portion of any other security of the holder subject to a limitation on conversion analogous to the limitations contained herein) and (2) the number of shares of Common Stock issuable upon the conversion of that portion of the Series E Preferred Stock with respect to which the determination of this proviso is being made, would result in beneficial ownership by such holder and its Affiliates or Associated Companies of any amount greater than 4.99% of the then outstanding shares of Common Stock (whether or not, at the time of such conversion, the Holder and its Affiliates or Associated Companies beneficially own more than 4.99% of the then outstanding shares of Common Stock). The waiver by a holder of Series E Preferred Stock of any limitation contained in an option or convertible security now or hereafter held by such holder that is similar or analogous to the limitations set forth in this Section 6(l) shall not be deemed a waiver or otherwise effect the limitation set forth in this Section 6(l), unless such waiver expressly states it is a waiver of the provisions of this Section 6(l). For purposes of this Section 6(l), beneficial ownership shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and Regulations 13D-G thereunder, except as otherwise provided in clause (1) of such proviso. Any holder of Series E Preferred Stock may waive the limitations set forth herein by sixty-one (61) days written notice to the Corporation or immediately preceding a Change of Control of the Corporation. For purposes of this Sections 6(l)(I) and (II), the term "Change of Control" means (1) any sale, lease or other transfer of substantially all of the Corporation's assets, in one or a series of transactions; (2) any merger, consolidation or similar business combination transaction, in which the Corporation is not the survivor or, if the Corporation is the survivor, then only if the holders of a majority of the Common Stock outstanding immediately before such transaction cease to own a majority of the Common Stock immediately after the transaction; (3) in or a series of events, any change in the majority of the members of the Board, unless the replacement directors were nominated by the majority of the Board immediately preceding such change; and (4) if any person or entity (other than the holders of the Series E Preferred Stock) shall acquire or become the "beneficial owner" (as that term is defined in Rule 13d-3 of the Exchange Act) of more than 50% of the Corporation's outstanding stock.

(II) Except as to a mandatory conversion contemplated by Section 6(b) above, notwithstanding anything herein to the contrary, in no event shall a holder of Series E Preferred Stock be entitled to convert any portion of the Series E Preferred Stock so held by such holder in excess of that portion upon conversion of which the sum of (1) the number of shares of Common Stock beneficially owned by such holder and its Affiliates or Associated Companies (other than shares of Common Stock which may be deemed beneficially owned through ownership of the unconverted shares of Series E Preferred Stock or the unexercised or unconverted portion of any other security of the holder subject to a limitation on conversion analogous to the limitations contained herein) and (2) the number of shares of Common Stock issuable upon the conversion of that portion of the Series E Preferred Stock with respect to which the determination of this proviso is being made, would result in beneficial ownership by such holder and its Affiliates or Associated Companies of any amount greater than 9.99% of the then outstanding shares of Common Stock (whether or not, at the time of such conversion, the Holder and its Affiliates or Associated Companies beneficially own more than 9.99% of the then outstanding shares of Common Stock). The waiver by a holder of Series E Preferred Stock of any limitation contained in an option or convertible security now or hereafter held by such holder that is similar or analogous to the limitations set forth in this Section 6(l) shall not be deemed a waiver or otherwise effect the limitation set forth in this Section 6(l), unless such waiver expressly states it is a waiver of the provisions of this Section 6(l). For purposes of this Section 6(l), beneficial ownership shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and Regulations 13D-G thereunder, except as otherwise provided in clause (1) of such proviso. Any holder of Series E Preferred Stock may waive the limitations set forth herein by sixty-one (61) days written notice to the Corporation or immediately preceding a Change of Control of the Corporation.

(m) Notices of Record Date. In case at any time:

(1) the Corporation shall declare any dividend upon its Common Stock or any other class or series of capital stock of the Corporation payable in cash or stock or make any other distribution to the holders of its Common Stock or any such other class or series of capital stock;

(2) the Corporation shall offer for subscription pro rata to the holders of its Common Stock or any other class or series of capital stock of the Corporation any additional shares of stock of any class or other rights; or

(3) there shall be any capital reorganization or reclassification of the capital stock of the Corporation, any Acquisition or a liquidation, dissolution or winding up of the Corporation;

then, in any one or more of said cases, the Corporation shall give, by delivery in person or by certified or registered mail, return receipt requested, addressed to each holder of any shares of Series E Preferred Stock at the address of such holder as shown on the books of the Corporation, (a) at least 20 Business Days' prior written notice of the date on which the books of the Corporation shall close or a record shall be taken for such dividend, distribution or subscription rights or for determining rights to vote in respect of any event set forth in clause (3) of this Section 6(m) and (b) in the case of any event set forth in clause (3) of this Section 6(m), at least 20 Business Days' prior written notice of the date when the same shall take place. Such notice in accordance with the foregoing clause (a) shall also specify, in the case of any such dividend, distribution or subscription rights, the date on which the holders of Common Stock or such other class or series of capital stock shall be entitled thereto and such notice in accordance with the foregoing clause (b) shall also specify the date on which the holders of Common Stock and such other series or class of capital stock shall be entitled to exchange their Common Stock and other stock for securities or other property deliverable upon consummation of the applicable event set forth in clause (3) of this Section 6(m).

(n) Upon any adjustment of the Series E Conversion Price, then and in each such case the Corporation shall give prompt written notice thereof, by delivery in person or by certified or registered mail, return receipt requested, addressed to each holder of shares of Series E Preferred Stock at the address of such holder as shown on the books of the Corporation, which notice shall state the Series E Conversion Price resulting from such adjustment and setting forth in reasonable detail the method upon which such calculation is based.

(o) The Corporation will at all times reserve and keep available out of its authorized Common Stock, solely for the purpose of issuance upon conversion of the Series E Preferred Stock as herein provided, 100% of such number of shares of Common Stock as shall then be issuable upon the conversion of all outstanding shares of Series E Preferred Stock without regard to the limitation set forth in Section 6(l). The Corporation covenants that all shares of Common Stock which shall be so issued shall be duly and validly issued and fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof, and, without limiting the generality of the foregoing, the Corporation covenants that it will from time to time take all such action as may be requisite to assure that the par value per share of the Common Stock is at all times equal to or less than the Series E Conversion Price in effect at the time. The Corporation will take all such action as may be necessary to assure that all such shares of Common Stock may be so issued without violation of any applicable law or regulation, or of any requirement of any national securities exchange upon which the Common Stock may be listed and are subject to an effective Registration Statement (as defined in the Registration Rights Agreement). The Corporation will not take any action which results in any adjustment of the Series E Conversion Price if the total number of shares of Common Stock issued and issuable after such action upon conversion of the Series E Preferred Stock would exceed the total number of shares of Common Stock then authorized by the Corporation's Amended and Restated Certificate of Incorporation.

(p) The issuance of certificates for shares of Common Stock upon conversion of Series E Preferred Stock shall be made without charge to the holders thereof for any issuance tax in respect thereof, provided that the Corporation shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than that of the holder of the Series E Preferred Stock which is being converted.

(q) The Corporation will at no time close its transfer books against the transfer of any Series E Preferred Stock or of any shares of Common Stock issued or issuable upon the conversion of any shares of Series E Preferred Stock in any manner which interferes with the timely conversion of such Series E Preferred Stock, except as may otherwise be required to comply with applicable securities laws.

7. ***Amendment***. This Certificate of Designations may only be amended with the prior written consent of the Requisite Holders and, in the event that any such amendment materially adversely affects a holder of Series E Preferred Stock in a manner disproportionate to the other holders of Series E Preferred Stock, without the prior written consent of such holder. The Corporation may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Corporation shall have obtained the written consent to such action or omission to act, of the Requisite Holders and, in the event that any such action or omission to act materially adversely affects a holder of Series E Preferred Stock in a manner disproportionate to the other holders of Series E Preferred Stock, without the prior written consent of such holder.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Designations to be duly executed as of the 11th day of February, 2009.

NOVELOS THERAPEUTICS, INC.

/s/ Harry S. Palmin

Name: Harry S. Palmin
Title: President and CEO

EXECUTION COPY

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED WITH THE SECURITIES AND EXCHANGE COMMISSION (THE "COMMISSION") OR THE SECURITIES COMMISSION OF ANY STATE IN RELIANCE UPON AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") AND APPLICABLE STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO (I) AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR (II) AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS.

Warrant No. P1 Original Issue Date: February 11, 2009

NOVELOS THERAPEUTICS, INC.

WARRANT TO PURCHASE 9,230,769 SHARES OF COMMON STOCK, PAR VALUE $0.00001 PER SHARE

FOR VALUE RECEIVED, Purdue Pharma L.P., a Delaware limited partnership (" **Warrantholder**"), is entitled to purchase, subject to the provisions of this Warrant, from NOVELOS THERAPEUTICS, INC. a Delaware corporation ("**Corporation**"), at any time not later than 5:00 P.M., Eastern time, on December 31, 2015 (the "**Expiration Date**"), at an exercise price per share equal to $**0.65** (the exercise price in effect being herein called the "**Warrant Price**"), 9,230,769 shares ("**Warrant Shares**") of the Corporation's Common Stock, par value $0.00001 per share ("**Common Stock**"). The number of Warrant Shares purchasable upon exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time as described herein. This Warrant has been issued pursuant to a certain Securities Purchase Agreement, dated as of February 11, 2009, by and among the Corporation and Warrantholder, (the "**Purchase Agreement**"). All capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Purchase Agreement.

Section 1. Registration. The Corporation shall maintain books for the transfer and registration of the Warrant. Upon the initial issuance of this Warrant, the Corporation shall issue and register the Warrant in the name of the Warrantholder.

Section 2. Transfers. As provided herein, this Warrant may be transferred only pursuant to a registration statement filed under the Securities Act, or an exemption from such registration. Notwithstanding the foregoing, the Warrantholder may sell, transfer, assign, pledge or otherwise dispose of the Warrant, in whole or in part, to any of its Associated Companies or any third party subject to, (i) compliance with all applicable securities laws and (ii) the delivery to the Corporation of such documentation to establish that such transfer is being made in accordance with the terms hereof, and as may be reasonably requested by the Corporation and necessary for the Corporation to obtain a legal opinion that such disposition may lawfully be made without registration under the Securities Act. Subject to the foregoing, the Corporation shall transfer this Warrant from time to time upon the books to be maintained by the Corporation for that purpose, upon surrender thereof for transfer properly endorsed or accompanied by appropriate instructions for transfer, and a new Warrant shall be issued to the transferee and the surrendered Warrant shall be canceled by the Corporation.

Section 3. Exercise of Warrant. Subject to the provisions hereof, the Warrantholder may exercise this Warrant in whole or in part at any time prior to its expiration upon surrender of the Warrant, together with delivery of the duly executed Warrant exercise form attached hereto as Appendix A (the "**Exercise Agreement**") and payment by cash, certified check or wire transfer of funds for the aggregate Warrant Price for that number of Warrant Shares then being purchased, to the Corporation during normal business hours on any Business Day at the Corporation's principal executive offices (or such other office or agency of the Corporation as it may designate by notice to the holder hereof). The Warrant Shares so purchased shall be deemed to be issued to the holder hereof or such holder's designee, as the record owner of such shares, as of the close of business on the date on which this Warrant shall have been surrendered (or evidence of loss, theft or destruction thereof and security or indemnity satisfactory to the Corporation), the Warrant Price shall have been paid and the completed Exercise Agreement shall have been delivered. Certificates for the Warrant Shares so purchased, representing the aggregate number of shares specified in the Exercise Agreement, shall be delivered to the holder hereof within a reasonable time, not exceeding three (3) Business Days, after this Warrant shall have been so exercised. When the Corporation is required to deliver certificates upon exercise, if certificates are not delivered to the Warrantholder within such three (3) Business Days, the Corporation shall be liable to the Warrantholder for liquidated damages equal to 1.5% of the aggregate Warrant Price for each 30-day period (or portion thereof) beyond such three (3) Business Day-period that the certificates have not been so delivered. The certificates so delivered shall be in such denominations as may be requested by the holder hereof and shall be registered in the name of such holder or such other name as shall be designated by such holder. If this Warrant shall have been exercised only in part, then, unless this Warrant has expired, the Corporation shall, at its expense, at the time of delivery of such certificates, deliver to the holder a new Warrant representing the number of shares with respect to which this Warrant shall not then have been exercised.

Section 4. Compliance with the Securities Act of 1933. The Corporation may cause the legend set forth on the first page of this Warrant to be set forth on each Warrant or similar legend on any security issued or issuable upon exercise of this Warrant, unless counsel for the Corporation is of the opinion as to any such security that such legend is unnecessary.

Section 5. Payment of Taxes. The Corporation will pay any documentary stamp taxes attributable to the initial issuance of Warrant Shares issuable upon the exercise of the Warrant; provided, however, that the Corporation shall not be required to pay any tax or taxes which may be payable in respect of any transfer involved in the issuance or delivery of any certificates for Warrant Shares in a name other than that of the registered holder of this Warrant in respect of which such shares are issued, and in such case, the Corporation shall not be required to issue or deliver any certificate for Warrant Shares or any Warrant until the person requesting the same has paid to the Corporation the amount of such tax or has established to the Corporation's reasonable satisfaction that such tax has been paid. The holder shall be responsible for income taxes due under federal, state or other law, if any such tax is due.

Section 6. Mutilated or Missing Warrants. In case this Warrant shall be mutilated, lost, stolen, or destroyed, the Corporation shall issue in exchange and substitution of and upon cancellation of the mutilated Warrant, or in lieu of and substitution for the Warrant lost, stolen or destroyed, a new Warrant of like tenor and for the purchase of a like number of Warrant Shares, but only upon receipt of evidence reasonably satisfactory to the Corporation of such loss, theft or destruction of the Warrant, and with respect to a lost, stolen or destroyed Warrant, reasonable indemnity or bond with respect thereto, if requested by the Corporation.

Section 7. Reservation of Common Stock. The Corporation hereby represents and warrants that there have been reserved, and the Corporation shall at all applicable times keep reserved until issued (if necessary) as contemplated by this Section 7, out of the authorized and unissued shares of Common Stock, 100% of the number of shares issuable upon exercise of the rights of purchase represented by this Warrant. The Corporation agrees that all Warrant Shares issued upon due exercise of the Warrant shall be, at the time of delivery of the certificates for such Warrant Shares, duly authorized, validly issued, fully paid and non-assessable shares of Common Stock of the Corporation.

Section 8. Adjustments. Subject and pursuant to the provisions of this Section 8, the Warrant Price and number of Warrant Shares subject to this Warrant shall be subject to adjustment from time to time as set forth hereinafter.

(a) If the Corporation shall, at any time or from time to time while this Warrant is outstanding, pay a dividend or make a distribution on its Common Stock in shares of Common Stock, subdivide its outstanding shares of Common Stock into a greater number of shares or combine its outstanding shares of Common Stock into a smaller number of shares or issue by reclassification of its outstanding shares of Common Stock any shares of its capital stock (including any such reclassification in connection with a consolidation or merger in which the Corporation is the continuing corporation), then the number of Warrant Shares purchasable upon exercise of the Warrant and the Warrant Price in effect immediately prior to the date upon which such change shall become effective, shall be adjusted by the Corporation so that the Warrantholder thereafter exercising the Warrant shall be entitled to receive the number of shares of Common Stock or other capital stock which the Warrantholder would have received if the Warrant had been fully exercised immediately prior to such event upon payment of a Warrant Price that has been adjusted to reflect a fair allocation of the economics of such event to the Warrantholder. Such adjustments shall be made successively whenever any event listed above shall occur.

(b) If any capital reorganization, reclassification of the capital stock of the Corporation, consolidation or merger of the Corporation with another corporation in which the Corporation is not the survivor, or sale, transfer or other disposition of all or substantially all of the Corporation's assets to another corporation shall be effected, then, the Corporation shall use its best efforts to ensure that lawful and adequate provision shall be made whereby each Warrantholder shall thereafter have the right to purchase and receive upon the basis and upon the terms and conditions herein specified and in lieu of the Warrant Shares immediately theretofore issuable upon exercise of the Warrant, such shares of stock, securities or assets as would have been issuable or payable with respect to or in exchange for a number of Warrant Shares equal to the number of Warrant Shares immediately theretofore issuable upon exercise of the Warrant, had such reorganization, reclassification, consolidation, merger, sale, transfer or other disposition not taken place, and in any such case appropriate provision shall be made with respect to the rights and interests of each Warrantholder to the end that the provisions hereof (including, without limitation, provision for adjustment of the Warrant Price) shall thereafter be applicable, as nearly equivalent as may be practicable in relation to any shares of stock, securities or assets thereafter deliverable upon the exercise thereof. The Corporation shall not effect any such consolidation, merger, sale, transfer or other disposition unless prior to or simultaneously with the consummation thereof the successor corporation (if other than the Corporation) resulting from such consolidation or merger, or the corporation purchasing or otherwise acquiring such assets or other appropriate corporation or entity shall assume the obligation to deliver to the holder of the Warrant, at the last address of such holder appearing on the books of the Corporation, such shares of stock, securities or assets as, in accordance with the foregoing provisions, such holder may be entitled to purchase, and the other obligations under this Warrant. The provisions of this Section 8(b) shall similarly apply to successive reorganizations, reclassifications, consolidations, mergers, sales, transfers or other dispositions.

(c) In case the Corporation shall fix a payment date for the making of a distribution to all holders of Common Stock (including any such distribution made in connection with a consolidation or merger in which the Corporation is the continuing corporation) of evidences of indebtedness or assets (other than cash dividends or cash distributions payable out of consolidated earnings or earned surplus or dividends or distributions referred to in Section 8(a)), or subscription rights or warrants, the Company shall provide notice to the Warrantholder at least 10 days in advance of the fixing of such payment date and the Warrantholder may elect to exercise this Warrant in whole or in part prior to such payment date in accordance with Section 3 hereof.

(d) For the term of this Warrant, in addition to the provisions contained above, the Warrant Price shall be subject to adjustment as provided below. An adjustment to the Warrant Price shall become effective immediately after the payment date in the case of each dividend or distribution and immediately after the effective date of each other event which requires an adjustment.

(e) In the event that, as a result of an adjustment made pursuant to this Section 8, the holder of this Warrant shall become entitled to receive any shares of capital stock of the Corporation other than shares of Common Stock, the number of such other shares so receivable upon exercise of this Warrant shall be subject thereafter to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Warrant Shares contained in this Warrant.

Section 9. Fractional Interest. The Corporation shall not be required to issue fractions of Warrant Shares upon the exercise of this Warrant. If any fractional share of Common Stock would, except for the provisions of the first sentence of this Section 9, be deliverable upon such exercise, the Corporation, in lieu of delivering such fractional share, shall pay to the exercising holder of this Warrant an amount in cash equal to the Market Price of such fractional share of Common Stock on the date of exercise.

Section 10. Benefits. Nothing in this Warrant shall be construed to give any person, firm or corporation (other than the Corporation and the Warrantholder) any legal or equitable right, remedy or claim, it being agreed that this Warrant shall be for the sole and exclusive benefit of the Corporation and the Warrantholder.

Section 11. Notices to Warrantholder. Upon the happening of any event requiring an adjustment of the Warrant Price, the Corporation shall promptly give written notice thereof to the Warrantholder at the address appearing in the records of the Corporation, stating the adjusted Warrant Price and the adjusted number of Warrant Shares resulting from such event and setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. Failure to give such notice to the Warrantholder or any defect therein shall not affect the legality or validity of the subject adjustment.

Section 12. Identity of Transfer Agent. The Transfer Agent for the Common Stock is American Stock Transfer & Trust Company. Upon the appointment of any subsequent transfer agent for the Common Stock or other shares of the Corporation's capital stock issuable upon the exercise of the rights of purchase represented by the Warrant, the Corporation will mail to the Warrantholder a statement setting forth the name and address of such transfer agent.

Section 13. Notices. Unless otherwise provided, any notice required or permitted under this Warrant shall be given in writing and shall be deemed effectively given as hereinafter described (i) if given by personal delivery, then such notice shall be deemed given upon such delivery, (ii) if given by telex or facsimile, then such notice shall be deemed given upon receipt of confirmation of complete transmittal, (iii) if given by mail, then such notice shall be deemed given upon the earlier of (A) receipt of such notice by the recipient or (B) three days after such notice is deposited in first class mail, postage prepaid, and (iv) if given by an internationally recognized overnight air courier, then such notice shall be deemed given one day after delivery to such carrier. All notices shall be addressed as follows: if to the Warrantholder, at its address as set forth in the Corporation's books and records and, if to the Corporation, at the address as follows, or at such other address as the Warrantholder or the Corporation may designate by ten days' advance written notice to the other:

If to the Corporation:

Novelos Therapeutics, Inc.
One Gateway Center, Suite 504
Newton, MA 02458
Attention: Chief Executive Officer
Fax: (617) 964-6331

With a copy to:

Foley Hoag LLP
Seaport World Trade Center West
155 Seaport Boulevard
Boston, MA 02210
Attn: Paul Bork
Fax: (617) 832-7000

Section 14. Registration Rights. The Warrantholder is entitled to the benefit of certain registration rights with respect to the shares of Common Stock issuable upon the exercise of this Warrant as provided in the Registration Rights Agreement dated February 11, 2009, by and among the Corporation and certain other parties, including the Warrantholder, and any subsequent holder hereof shall be entitled to such rights to the extent provided in the Registration Rights Agreement.

Section 15. Successors. All the covenants and provisions hereof by or for the benefit of the Warrantholder shall bind and inure to the benefit of its respective successors and assigns hereunder.

Section 16. Governing Law. This Warrant shall be governed by, and construed in accordance with, the internal laws of the State of New York, without reference to the choice of law provisions thereof. The Corporation and, by accepting this Warrant, the Warrantholder, each irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Warrant and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Warrant. The Corporation and, by accepting this Warrant, the Warrantholder, each irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. The Corporation and, by accepting this Warrant, the Warrantholder, each irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **THE CORPORATION AND THE WARRANTHOLDER HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING RELATING TO OR ARISING OUT OF THIS WARRANT AND THE TRANSACTIONS CONTEMPLATED HEREBY.**

Section 17. No Rights as Shareholder. Prior to the exercise of this Warrant, the Warrantholder shall not have or exercise any rights as a shareholder of the Corporation by virtue of its ownership of this Warrant.

Section 18. Restrictions on Exercise of Warrant.

(a) Notwithstanding anything herein to the contrary, in no event shall the Warrantholder be entitled to exercise any portion of the Warrant per Section 3 so held by such Warrantholder in excess of that portion upon exercise of which the sum of (1) the number of shares of Common Stock beneficially owned by such Warrantholder and its Associated Companies (other than shares of Common Stock which may be deemed beneficially owned through ownership of the unexercised Warrant or portion thereof or the unexercised or unconverted portion of any other security of the Warrantholder subject to a limitation on exercise analogous to the limitations contained herein) and (2) the number of shares of Common Stock issuable upon the exercise of that portion of the Warrant with respect to which the determination of this proviso is being made, would result in beneficial ownership by such Warrantholder and its Associated Companies of any amount greater than 4.99% of the then outstanding shares of Common Stock (whether or not, at the time of such conversion, the Warrantholder and its Associated Companies beneficially own more than 4.99% of the then outstanding shares of Common Stock). The waiver by the Warrantholder of any limitation contained in an option or convertible security now or hereafter held by such holder that is similar or analogous to the limitations set forth in this Section 18(a) shall not be deemed a waiver or otherwise effect the limitation set forth in this Section 18(a), unless such waiver expressly states it is a waiver of the provisions of this Section 18(a). For purposes of this Section 18(a), beneficial ownership shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and Regulations 13D-G thereunder, except as otherwise provided in clause (1) of such proviso. The Warrantholder may waive the limitations set forth herein by sixty-one (61) days written notice to the Corporation or immediately preceding a Change of Control of the Corporation. For purposes of Sections 18(a) and 18(b), the term "Change of Control" shall mean (1) any sale, lease or other transfer of substantially all of the Corporation's assets, in one or a series of transactions; (2) any merger, consolidation or similar business combination transaction, in which the Corporation is not the survivor or, if the Corporation is the survivor, then only if the holders of a majority of the Common Stock outstanding immediately before such transaction cease to own a majority of the Common Stock immediately after the transaction; (3) if one or a series of events, any change in the majority of the members of the Corporation's Board of Directors (the **"Board"**), unless the replacement directors were nominated by the majority of the Board immediately preceding such change; and (4) if any person or entity (other than Purdue) shall acquire or become the "beneficial owner" (as that term is defined in Rule 13d-3 of the Exchange Act) of more than 50% of the Corporation's outstanding stock.

(b) Notwithstanding anything herein to the contrary, in no event shall the Warrantholder be entitled to exercise any portion of the Warrant per Section 3 so held by such Warrantholder in excess of that portion upon exercise of which the sum of (1) the number of shares of Common Stock beneficially owned by such Warrantholder and its Associated Companies (other than shares of Common Stock which may be deemed beneficially owned through ownership of the unexercised Warrant or portion thereof or the unexercised or unconverted portion of any other security of the Warrantholder subject to a limitation on exercise analogous to the limitations contained herein) and (2) the number of shares of Common Stock issuable upon the exercise of that portion of the Warrant with respect to which the determination of this proviso is being made, would result in beneficial ownership by such Warrantholder and its Associated Companies of any amount greater than 9.99% of the then outstanding shares of Common Stock (whether or not, at the time of such conversion, the Warrantholder and its Associated Companies beneficially own more than 9.99% of the then outstanding shares of Common Stock). The waiver by the Warrantholder of any limitation contained in an option or convertible security now or hereafter held by such holder that is similar or analogous to the limitations set forth in this Section 18(b) shall not be deemed a waiver or otherwise effect the limitation set forth in this Section 18(b), unless such waiver expressly states it is a waiver of the provisions of this Section 18(b). For purposes of this Section 18(b), beneficial ownership shall be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and Regulations 13D-G thereunder, except as otherwise provided in clause (1) of such proviso. The Warrantholder may waive the limitations set forth herein by sixty-one (61) days written notice to the Corporation or immediately preceding a Change of Control of the Corporation.

Section 19. Amendments. This Warrant shall not be amended without the prior written consent of the Corporation and the Warrantholder.

Section 20. Section Headings. The section headings in this Warrant are for the convenience of the Corporation and the Warrantholder and in no way alter, modify, amend, limit or restrict the provisions hereof.

IN WITNESS WHEREOF, the Corporation has caused this Warrant to be duly executed, as of the 11th day of February, 2009.

NOVELOS THERAPEUTICS, INC.

By: /s/ Harry S. Palmin
Name: Harry S. Palmin
Title: President and CEO

APPENDIX A
NOVELOS THERAPEUTICS, INC.
WARRANT EXERCISE FORM

To: NOVELOS THERAPEUTICS, INC.

The undersigned hereby irrevocably elects to exercise the right of purchase represented by the within Warrant ("Warrant") for, and to purchase thereunder by the payment of the Warrant Price and surrender of the Warrant, _____ shares of Common Stock ("Warrant Shares") provided for therein, and requests that certificates for the Warrant Shares be issued as follows:

_____
Name

_____
Address

_____

_____
Federal Tax ID or Social Security No.

and delivered by

☐ certified mail to the above address, or
☐ electronically (provide DWAC Instructions:_____), or
☐ other (specify: _____).

and, if the number of Warrant Shares shall not be all the Warrant Shares purchasable upon exercise of the Warrant, that a new Warrant for the balance of the Warrant Shares purchasable upon exercise of this Warrant be registered in the name of the undersigned Warrantholder or the undersigned's Assignee as below indicated and delivered to the address stated below.

Dated: _____, ____

Note: The signature must correspond with the name of the registered holder as written on the first page of the Warrant in every particular, without alteration or enlargement or any change whatever, unless the Warrant has been assigned.

Signature:

_____
_____
Name (please print)

_____

_____
Address

_____
Federal Identification or Social Security No.

Assignee:

_____
_____
_____

CERTIFICATE OF ELIMINATION
OF
SERIES B CONVERTIBLE PREFERRED STOCK
OF
NOVELOS THERAPEUTICS, INC.
(Pursuant to Section 151(g) of the General
Corporation Law of the State of Delaware)

Novelos Therapeutics, Inc., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "Corporation") does hereby certify as follows:

FIRST: The Certificate of Designations filed on May 2, 2007 and constituting part of the Corporation's Certificate of Incorporation (the "Certificate of Designations") authorizes the issuance of 400 shares of a series of Preferred Stock designated Series B Convertible Preferred Stock, par value $0.00001 per share (the "Series B Preferred Stock").

SECOND: Pursuant to the provisions of Section 151(g) of the General Corporation Law of the State of Delaware, the Board of Directors of the Corporation adopted the following resolutions:

RESOLVED, that no shares of the Corporation's Series B Preferred Stock are outstanding and that no shares of the Series B Preferred Stock will be issued subject to the Certificate of Designations; and

RESOLVED FURTHER, that all matters set forth in the Certificate of Designations with respect to the Series B Preferred Stock be eliminated from the Corporation's Certificate of Incorporation, as heretofore amended; and

RESOLVED FURTHER, that the officers of the Corporation are directed to file with the Secretary of State of the State of Delaware a Certificate of Elimination pursuant to Section 151(g) of the General Corporation Law of the State of Delaware setting forth these resolutions in order to eliminate from the Corporation's Certificate of Incorporation all matters set forth in the Certificate of Designations with respect to the Series B Preferred Stock.

THIRD: Pursuant to the provisions of Section 151(g) of the General Corporation Law of the State of Delaware, all references to the Series B Preferred Stock in the Certificate of Incorporation of the Corporation hereby are eliminated, and the shares that were designated to such series hereby are returned to the status of authorized but unissued shares of the Preferred Stock of the Corporation, without designation as to series.

[Signature on next page]

IN WITNESS WHEREOF, the Corporation has caused this Certificate to be signed by its duly authorized officer this 11th day of February, 2009.

NOVELOS THERAPEUTICS, INC.

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

CERTIFICATE OF ELIMINATION

OF

SERIES D CONVERTIBLE PREFERRED STOCK

OF

NOVELOS THERAPEUTICS, INC.

(Pursuant to Section 151(g) of the General
Corporation Law of the State of Delaware)

Novelos Therapeutics, Inc., a corporation organized and existing under the General Corporation Law of the State of Delaware (the "Corporation") does hereby certify as follows:

FIRST: The Certificate of Designations filed on April 11, 2008 and constituting part of the Corporation's Certificate of Incorporation (the "Certificate of Designations") authorizes the issuance of 420 shares of a series of Preferred Stock designated Series D Convertible Preferred Stock, par value $0.00001 per share (the "Series D Preferred Stock").

SECOND: Pursuant to the provisions of Section 151(g) of the General Corporation Law of the State of Delaware, the Board of Directors of the Corporation adopted the following resolutions:

RESOLVED, that no shares of the Corporation's Series D Preferred Stock are outstanding and that no shares of the Series D Preferred Stock will be issued subject to the Certificate of Designations; and

RESOLVED FURTHER, that all matters set forth in the Certificate of Designations with respect to the Series D Preferred Stock be eliminated from the Corporation's Certificate of Incorporation, as heretofore amended; and

RESOLVED FURTHER, that the officers of the Corporation are directed to file with the Secretary of State of the State of Delaware a Certificate of Elimination pursuant to Section 151(g) of the General Corporation Law of the State of Delaware setting forth these resolutions in order to eliminate from the Corporation's Certificate of Incorporation all matters set forth in the Certificate of Designations with respect to the Series D Preferred Stock.

THIRD: Pursuant to the provisions of Section 151(g) of the General Corporation Law of the State of Delaware, all references to the Series D Preferred Stock in the Certificate of Incorporation of the Corporation hereby are eliminated, and the shares that were designated to such series hereby are returned to the status of authorized but unissued shares of the Preferred Stock of the Corporation, without designation as to series.

[Signature on next page]

IN WITNESS WHEREOF, the Corporation has caused this Certificate to be signed by its duly authorized officer this 12th day of February, 2009.

NOVELOS THERAPEUTICS, INC.

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

EXECUTION COPY

SECURITIES PURCHASE AGREEMENT

THIS SECURITIES PURCHASE AGREEMENT ("**Agreement**") is made as of this 11th day of February, 2009 by and among Novelos Therapeutics, Inc., a Delaware corporation (the "**Company**") and Purdue Pharma L.P., a Delaware limited partnership ("**Purdue**").

Recitals:

A. The Company desires, pursuant to this Agreement, to raise the Investment Amount (as defined below) through the issuance and sale of the following to Purdue (the "**Private Placement**"): (i) 200 shares (the "**Preferred Shares**") of a newly created series of the Company's Preferred Stock, designated "Series E Convertible Preferred Stock", par value $0.00001 per share (the "**Preferred Stock**"), which Preferred Stock shall have the rights, preferences and privileges set forth in the Certificate of Designations, Preferences and Rights, in the form of Exhibit A annexed hereto and made a part hereof (the "**Certificate of Designations**"), and each share of Preferred Stock shall have a stated value of $50,000 and shall initially be convertible into shares of the Company's Common Stock, par value $0.00001 per share (the "**Common Stock**"), at a price of $0.65 per share (the "**Conversion Price**"), for an aggregate of 15,384,615 shares of Common Stock; and (ii) a warrant to acquire up to 9,230,769 shares of Common Stock, equal to 60% of the number of shares of Common Stock underlying the Preferred Shares on the date of issue, with an exercise price of $0.65 per share, in the form of Exhibit B annexed hereto and made a part hereof (the "**Warrant**");

B. Purdue desires to purchase from the Company, and the Company desires to issue and sell to Purdue, upon the terms and conditions stated in this Agreement, the Preferred Shares and the Warrant;

C. Subject to the conditions hereinafter set forth, on the Closing Date, Purdue will purchase the Preferred Shares and Warrant in the Private Placement for an aggregate purchase price equal to the Investment Amount;

D. The Company and Purdue are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by the provisions of Regulation D ("**Regulation D**"), as promulgated by the U.S. Securities and Exchange Commission (the "**SEC**") under the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (the "**1933 Act**");

E. Contemporaneous with the sale of the Preferred Shares and the Warrant at the Closing, the Company and Purdue along with the Series D Investors (as defined below) and holders of Series B Warrants (as defined below) will enter into a Registration Rights Agreement, in the form attached hereto as Exhibit H (the "**Registration Rights Agreement**"), pursuant to which, among other things, the Company will provide certain registration rights to Purdue, the Series D Investors and the holders of the Series B Warrants with respect to the shares of Common Stock issuable upon conversion or exercise, as the case may be, of the Preferred Stock, the Warrant, the Series B Warrants and the Series D Warrants (as defined below); and

F. Contemporaneous with the sale of the Preferred Shares and the Warrant at the Closing, the Company and Mundipharma International Corporation Limited will enter into a Collaboration Agreement, in the form attached hereto as Exhibit F (the "**Collaboration Agreement**");

NOW, THEREFORE, in consideration of the mutual promises made herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Definitions. In addition to those terms defined above and elsewhere in this Agreement, for the purposes of this Agreement, the following terms shall have the meanings set forth in this Section 1:

"**1933 Act**" has the meaning set forth in the Recitals.

"**1934 Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"**Affiliate**" means, with respect to any Person, any other Person which directly or indirectly Controls, is Controlled by, or is under common Control with, such Person.

"**Agreement**" has the meaning set forth in the Recitals.

"**Associated Company**" means, as to Purdue, any person, firm, trust, partnership, corporation, company or other entity or combination thereof, which directly or indirectly (i) controls (ii) is controlled by or (iii) is under common control with Purdue. The terms "control" and "controlled" mean ownership of 50% or more, including ownership by trusts with substantially the same beneficial interests, of the voting and equity rights of such person, firm, trust, partnership, corporation, company or other entity or combination thereof or the power to direct the management of such person, firm, trust, partnership, corporation, company or other entity or combination thereof.

"**Business Day**" means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business.

"**Buy-In Price**" has the meaning set forth in Section 8.12.

"**Certificate of Designations**" has the meaning set forth in the Recitals.

"**Closing**" has the meaning set forth in Section 4.1.

"**Closing Date**" has the meaning set forth in Section 4.2.

"**Collaboration Agreement**" has the meaning set forth in the Recitals.

"**Common Stock**" has the meaning set forth in the Recitals, and also includes any securities into which the Common Stock may be reclassified.

"**Common Stock Equivalents**" means any securities of the Company or the Subsidiaries which entitle the holder thereof to acquire Common Stock at any time, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

"**Company**" has the meaning set forth in the Recitals.

"**Company Counsel**" means Foley Hoag LLP, counsel to the Company.

"**Company's Knowledge,**" "**Knowledge of the Company**" or any like expression with respect to the Company means the actual knowledge of the officers of the Company and the knowledge that would be reasonably expected to be known by such individuals in the ordinary and usual course of the performance of their professional responsibilities to the Company.

"**Company Counsel Opinion**" means a legal opinion from the Company Counsel, dated as of the Closing Date, in the form attached hereto as Exhibit E.

"**Confidential Information**" means trade secrets, confidential information and know-how (including but not limited to ideas, formulae, compositions, processes, procedures and techniques, research and development information, computer program code, performance specifications, support documentation, drawings, specifications, designs, business and marketing plans, and customer and supplier lists and related information).

"**Control**" means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"**Conversion Price**" has the meaning set forth in the Recitals.

"**Conversion Shares**" means the shares of Common Stock issuable upon conversion of the Preferred Shares.

"**Deadline Date**" has the meaning set forth in Section 8.12.

"**Disclosure Schedules**" has the meaning set forth in Section 5.

"**Environmental Laws**" has the meaning set forth in Section 5.15.

"**Exempt Issuance**" means the issuance of (a) shares of Common Stock or options to employees, officers, directors or consultants of the Company pursuant to (i) any existing stock or option plan, or (ii) any stock or option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, (b) options issued to new employees, (c) securities upon the exercise or exchange of or conversion of any Securities issued hereunder and/or securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise, exchange or conversion price of any such securities, and (d) securities issued pursuant to acquisitions or strategic transactions or in connection with a strategic alliance collaboration, joint venture, partnership, manufacturing, marketing, distributing or similar arrangement of the Company with another Person which strategic alliance, collaboration, joint venture, partnership manufacturing, marketing, distributing or similar arrangement relates to the Company's business as conducted immediately prior thereto and which Person is engaged in a business similar or related to the business of the Company, provided any such issuance shall only be to a Person which is, itself or through its subsidiaries, an operating company in a business synergistic with the business of the Company and in which the Company receives benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

"**Indebtedness**" shall mean (a) any liabilities for borrowed money or amounts owed in excess of $50,000 (other than trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Company's balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of $50,000 due under leases required to be capitalized in accordance with United States generally accepted accounting principles.

"**Indemnified Person**" has the meaning set forth in Section 9.3.

"**Intellectual Property**" means all of the following: (i) patents, patent applications, patent disclosures and inventions (whether or not patentable and whether or not reduced to practice); (ii) trademarks, service marks, trade dress, trade names, corporate names, logos, slogans and Internet domain names, together with all goodwill associated with each of the foregoing; (iii) copyrights and copyrightable works; (iv) registrations, applications and renewals for any of the foregoing; (v) trade secrets, Confidential Information and know-how (including, but not limited to, ideas, formulae, compositions, manufacturing and production processes and techniques, research and development information, drawings, specifications, designs, business and marketing plans, and customer and supplier lists and related information); and (vi) computer software (including, but not limited to, data, data bases and documentation).

"**Investment Amount**" means an amount equal to $10,000,000.

"**License Agreements**" has the meaning set forth in Section 5.14(b).

"**Losses**" has the meaning set forth in Section 9.2.

"**Material Adverse Effect**" means a material adverse effect on (i) the assets and liabilities, prospects, results of operations, condition (financial or otherwise) or business of the Company, or (ii) the ability of the Company to issue and sell the Securities and to perform its obligations under the Transaction Documents; *provided, however*, that: (A) any adverse effect that results from general economic, business or industry conditions, the taking by the Company of any action permitted or required by the Agreement, or the announcement or pendency of transactions contemplated hereunder, shall not, in and of itself, constitute a "Material Adverse Effect" on the Company, and shall not be considered in determining whether there has been or would be a "Material Adverse Effect" on the Company and (B) a decline in the Company's stock price shall not, in and of itself, constitute a "Material Adverse Effect" on the Company and shall not be considered in determining whether there has been or would be a "Material Adverse Effect" on the Company.

"**Material Contract**" means any contract of the Company (i) that was required to be filed as an exhibit to the SEC Filings pursuant to Item 601(b)(4) or Item 601(b)(10) of, in the case of SEC Filings relating to periods prior to January 1, 2007, Regulation S-B of the 1933 Act, or otherwise, Regulation S-K of the 1933 Act, or (ii) the loss of which could reasonably be expected to have a Material Adverse Effect.

"**OTCBB**" shall mean the OTC Bulletin Board.

"**Person**" means an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

"**Preferred Shares**" has the meaning set forth in the Recitals.

"**Preferred Stock**" has the meaning set forth in the Recitals.

"Press Release" has the meaning set forth in Section 8.10.

"**Private Placement**" has the meaning set forth in the Recitals.

"**Pro Rata Share**" means with respect to each capital raising transaction to which Section 10.1 applies an amount equal to the product obtained by multiplying (a) an amount equal to the securities being issued in such capital raising transaction times (b) a fraction of which the numerator is the number of outstanding Conversion Shares beneficially owned by Purdue and its Associated Companies at the time the Pro Rata Share is being determined, and the denominator is all of the Conversion Shares issued under this Agreement, subject to adjustment of the Conversion Shares for stock splits, stock dividends and similar capital changes affecting the Common Stock that occur on or after the Closing Date and on or prior to the date Pro Rata Share is being determined.

"**Purdue Observer**" has the meaning set forth in Section 8.7.

"**Registration Rights Agreement**" has the meaning set forth in the Recitals.

"**Regulation D**" has the meaning set forth in the Recitals.

"**Requisite Holder**" shall mean that Purdue has purchased an aggregate of $10,000,000 of Preferred Stock pursuant to this Agreement and Purdue and its Associated Companies hold at least one-half of the Preferred Stock issued to Purdue at Closing as of the date of determination (appropriately adjusted for any stock dividend, stock split, reverse stock split, reclassification, stock combination or other recapitalization occurring after the date hereof).

"Rule 144" has the meaning set forth in Section 8.11.

"**SEC**" has the meaning set forth in the Recitals.

"SEC Filings" has the meaning set forth in Section 5.6.

"**Securities**" means the Preferred Shares, the Conversion Shares, the shares of Common Stock or Preferred Stock issuable as payment-in-kind dividends on the Preferred Stock in accordance with the terms thereof, the Warrant and the Warrant Shares.

"**Series B Warrants**" shall mean the warrants to purchase up to 7,500,000 shares of Common Stock dated May 2, 2007, as amended, issued pursuant to that certain Securities Purchase Agreement dated as of April 12, 2007, as amended on May 2, 2007.

"**Series D Investors**" shall mean the holders of the Series D Preferred Stock.

"**Series D Preferred Stock**" shall mean the 113.5 shares of Series D Convertible Preferred Stock, par value $.00001, issued pursuant to that certain Securities Purchase Agreement dated as of March 26, 2008, as amended on April 9, 2008.

"**Series D Warrants**" shall mean the warrants dated April 11, 2008 and issued pursuant to pursuant to that certain Securities Purchase Agreement dated as of March 26, 2008, as amended on April 9, 2008.

"**Transaction Documents**" means this Agreement, the Warrant and the Registration Rights Agreement.

"**Warrant Shares**" means the shares of Common Stock issuable upon exercise of the Warrant.

"**Warrant**" has the meaning set forth in the Recitals.

2. Purchase and Sale of Securities.

Subject to the terms and conditions of this Agreement, including without limitation, the conditions set forth in Section 7, there shall be a closing at which the Company shall issue and sell, and Purdue agrees to purchase Preferred Shares in the Private Placement by executing a counterpart to this Agreement, shall purchase, the Preferred Shares and the Warrant in exchange for the cash consideration set forth as the "Investment Amount."

3. [Reserved.]

4. Closing.

4.1 Place. The closings of the transactions contemplated by this Agreement (the "**Closing**") shall take place simultaneously with the execution hereof at the offices of Company Counsel, Seaport World Trade Center West, 155 Seaport Boulevard, Boston, MA 02210, or at such other location and on such other date as the Company and Purdue shall mutually agree (or remotely via the electronic exchange of documents and signatures).

4.2 Closing. Simultaneously with the execution hereof, the Company shall hold the Closing. At the Closing, the Company will deliver to Purdue via e-mail an electronic copy of the signed stock certificate(s) representing the Preferred Shares registered in Purdue's name and a photocopy of the signed Warrant. Following such delivery, Purdue shall promptly initiate a wire transfer of immediately available funds (U.S. dollars) equal to the Investment Amount to be delivered to the account of the Company, account details of which are as set forth on **Schedule 4.2** affixed hereto.

4.3 Delivery of Original Preferred Shares and Warrant. As soon as possible after the Closing, but no later than 5 Business Days following the Closing, the Company will deliver by overnight mail, original certificate(s) representing the Preferred Shares and the original Warrant.

5. Representations and Warranties of the Company. The Company hereby represents and warrants to Purdue on and as of the Closing Date, knowing and intending their reliance hereon, that, except as set forth in the schedules delivered herewith (collectively, the "**Disclosure Schedules**"):

5.1. Organization, Good Standing and Qualification. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the jurisdiction of its incorporation and has all requisite corporate power and authority to carry on its business as now conducted and to own its properties. The Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction in which the conduct of its business or its ownership or its leasing of property makes such qualification or licensing necessary, unless the failure to so qualify would not have a Material Adverse Effect. The Company has no subsidiaries.

5.2. Authorization. The Company has full power and authority and has taken all requisite action on the part of the Company, its officers, directors and stockholders necessary for (i) the authorization, execution and delivery of the Transaction Documents and the Certificate of Designations, (ii) authorization of the performance of all obligations of the Company hereunder or thereunder, and (iii) the authorization, issuance (or reservation for issuance) and delivery of the Securities. The Transaction Documents constitute the legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their respective terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability, relating to or affecting creditors' rights generally.

5.3. Capitalization.

(a) Schedule 5.3 sets forth (i) the authorized capital stock of the Company on the date hereof, (ii) the number of shares of capital stock issued and outstanding, (iii) the number of shares of capital stock issuable pursuant to the Company's stock plans, and (iv) the number of shares of capital stock issuable and reserved for issuance pursuant to securities (other than the Securities) exercisable for, or convertible into or exchangeable for any shares of capital stock of the Company. All of the issued and outstanding shares of the Company's capital stock have been duly authorized and validly issued and are fully paid, nonassessable and free of pre-emptive rights and were issued in full compliance with applicable law and any rights of third parties. No Person is entitled to pre-emptive or similar statutory or contractual rights with respect to any securities of the Company. Except as described on Schedule 5.3, there are no outstanding warrants, options, convertible securities or other rights, agreements or arrangements of any character under which the Company is or may be obligated to issue any equity securities of any kind and, except as contemplated by this Agreement, the Company is not currently in negotiations for the issuance of any equity securities of any kind. Except as described on Schedule 5.3 and except for the Registration Rights Agreement, there are no voting agreements, buy-sell agreements, option or right of first purchase agreements or other agreements of any kind among the Company and any of its security holders relating to the securities of the Company. Except as described on Schedule 5.3, the Company has not granted any Person the right to require the Company to register any of its securities under the 1933 Act, whether on a demand basis or in connection with the registration of securities of the Company for its own account or for the account of any other Person.

(b) Schedule 5.3 sets forth a true and complete table setting forth the pro forma capitalization of the Company on a fully diluted basis giving effect to (i) the issuance of the Preferred Shares and the Warrant at the time of the Closing, (ii) any adjustments in other securities resulting from the issuance of the Preferred Shares and the Warrant at the time of the Closing, and (iii) the exercise or conversion of all outstanding securities. Except as described on Schedule 5.3, the issuance and sale of the Securities hereunder will not obligate the Company to issue shares of Common Stock or other securities to any other Person (other than Purdue) and will not result in the adjustment of the exercise, conversion, exchange or reset price of any outstanding security.

(c) Except as set forth on Schedule 5.3, the Company does not have outstanding stockholder purchase rights or any similar arrangement in effect giving any Person the right to purchase any equity interest in the Company upon the occurrence of certain events.

(d) Except as set forth on Schedule 5.3, there are no stockholder rights plans, or similar plan or arrangement in effect, including those under which Purdue would be considered an "acquiring person" or under which Purdue would be deemed to trigger provisions by virtue of Purdue's receipt of Securities under the Transaction Documents.

5.4. Valid Issuance. The Preferred Shares have been duly and validly authorized and, when issued to Purdue in accordance with the terms of this Agreement, will be validly issued, fully paid and nonassessable, shall have the rights, preferences and limitations set forth in the Certificate of Designations and shall be free and clear of all liens, claims, encumbrances and restrictions, except for restrictions on transfer set forth in the Transaction Documents and the Certificate of Designations or imposed by applicable securities laws. Upon the due conversion of the Preferred Shares, the Conversion Shares will be validly issued, fully paid and nonassessable, and shall be free and clear of all liens, claims, encumbrances and restrictions, except for restrictions on transfer set forth in the Transaction Documents and the Certificate of Designations or imposed by applicable securities laws. The Warrant has been duly and validly authorized and, upon the due exercise of the Warrant, the Warrant Shares will be validly issued, fully paid and non-assessable, and shall be free and clear of all liens, claims, encumbrances and restrictions, except for restrictions on transfer set forth in the Transaction Documents and the Certificate of Designations or imposed by applicable securities laws. The Company has reserved a sufficient number of shares of Common Stock for issuance upon conversion of the Preferred Shares and exercise of the Warrant.

5.5. Consents. The execution, delivery and performance by the Company of the Transaction Documents and the Certificate of Designations and the offer, issuance and sale of the Securities require no consent of, action by or in respect of, or filing with, any Person, governmental body, agency, or official other than those consents set forth on Schedule 5.5 and filings that have been made pursuant to applicable state securities laws and post-sale filings pursuant to applicable state and federal securities laws which the Company undertakes to file within the applicable time periods. The Company has taken all action necessary to exempt (i) the issuance and sale of the Securities, (ii) the issuance of the Conversion Shares upon due conversion of the Preferred Shares, (iii) the issuance of the Warrant Shares upon due exercise of the Warrant, and (iv) the other transactions contemplated by the Transaction Documents from the provisions of any anti-takeover, business combination or control share law or statute binding on the Company or to which the Company or any of its assets and properties may be subject or any provision of the Company's Certificate of Incorporation, Bylaws or any stockholder rights agreement that is or could become applicable to Purdue, as a result of the transactions contemplated hereby, including without limitation, the issuance of the Securities and the ownership, disposition or voting of the Securities by Purdue or the exercise of any right granted to Purdue pursuant to this Agreement, the Certificate of Designations or the other Transaction Documents.

5.6. Delivery of SEC Filings; Business. Copies of the Company's most recent Annual Report on Form 10-KSB for the fiscal year ended December 31, 2007, the Company's quarterly reports on Form 10-Q for the quarters ended March 31, 2008, June 30, 2008, and September 30, 2008, reports on Form 8-K filed by the Company from January 1, 2008 through the Closing Date (collectively, the "**SEC Filings**") are available on EDGAR. The SEC Filings are the only filings required of the Company pursuant to the 1934 Act for such period. The Company is engaged only in the business described in the SEC Filings and the SEC Filings contain a complete and accurate description in all material respects of the business of the Company.

5.7 No Material Adverse Change. Except as contemplated herein or identified and described on Schedule 5.7(a), since October 1, 2008, there has not been:

(i) any change in the consolidated assets, liabilities, financial condition or operating results of the Company from that reflected in the financial statements included in the SEC Filings, except for changes in the ordinary course of business which have not and could not reasonably be expected to have a Material Adverse Effect, individually or in the aggregate;

(ii) any declaration or payment of any dividend, or any authorization or payment of any distribution, on any of the capital stock of the Company, or any redemption or repurchase of any securities of the Company;

(iii) any material damage, destruction or loss, whether or not covered by insurance to any assets or properties of the Company or its Subsidiaries;

(iv) any waiver, not in the ordinary course of business, by the Company of a material right or of a material debt owed to it;

(v) any satisfaction or discharge of any lien, claim or encumbrance or payment of any obligation by the Company, except in the ordinary course of business and which is not material to the assets, properties, financial condition, operating results, prospects or business of the Company;

(vi) any change or amendment to the Company's Certificate of Incorporation or Bylaws, or material change to any Material Contract or arrangement by which the Company is bound or to which any of its assets or properties is subject;

(vii) any material labor difficulties or labor union organizing activities with respect to employees of the Company;

(viii) any transaction entered into by the Company other than in the ordinary course of business;

(ix) the loss of the services of any key employee, or material change in the composition or duties of the senior management of the Company;

(x) the loss or threatened loss of any customer which has had or could reasonably be expected to have a Material Adverse Effect; or

(xi) any other event or condition of any character that has had or could reasonably be expected to have a Material Adverse Effect.

5.8. SEC Filings. At the time of filing thereof, the SEC Filings complied as to form in all material respects with the requirements of the 1934 Act and did not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading. The Company is not (with or without the lapse of time or the giving of notice, or both) in breach or default of any Material Contract and, to the Company's Knowledge, no other party to any Material Contract is (with or without the lapse of time or the giving of notice, or both) in breach or default of any Material Contract. The Company has not received any notice of the intention of any party to terminate any Material Contract.

5.9. No Conflict, Breach, Violation or Default. The execution, delivery and performance of the Transaction Documents and the Certificate of Designations by the Company and the issuance and sale of the Securities will not conflict with or result in a breach or violation of any of the terms and provisions of, or constitute a default under (i) the Company's Certificate of Incorporation or Bylaws, both as in effect on the date hereof (true and accurate copies of which have been provided to Purdue before the date hereof), or (ii)(a) any statute, rule, regulation or order of any governmental agency or body or any court, domestic or foreign, having jurisdiction over the Companyor any of its respective assets or properties, or (b) except as set forth on Schedule 5.9, any agreement or instrument to which the Company is a party or by which it is bound or to which any of its assets or properties is subject.

5.10. Tax Matters. The Company has timely prepared and filed all tax returns required to have been filed by it with all appropriate governmental agencies and timely paid all taxes shown thereon or otherwise owed by it. The charges, accruals and reserves on the books of the Company in respect of taxes for all fiscal periods are adequate in all material respects, and there are no material unpaid assessments against the Company nor, to the Company's Knowledge, any basis for the assessment of any additional taxes, penalties or interest for any fiscal period or audits by any federal, state or local taxing authority except for any assessment which is not material to the Company. All taxes and other assessments and levies that the Company is required to withhold or to collect for payment have been duly withheld and collected and paid to the proper governmental entity or third party when due. There are no tax liens or claims pending or, to the Company's Knowledge, threatened against the Company or any of its assets or properties. Except as described on Schedule 5.10, there are no outstanding tax sharing agreements or other such arrangements between the Company and any other corporation or entity. The Company is not presently undergoing any audit by a taxing authority, nor has it waived or extended any statute of limitations at the request of any taxing authority.

5.11. Title to Properties. Except as disclosed in the SEC Filings or as set forth on Schedule 5.11, the Company has good and marketable title to all real properties and all other properties and assets owned by it, in each case free from liens, encumbrances and defects that would materially affect the value thereof or materially interfere with the use made or currently planned to be made thereof by the Company; and except as disclosed in the SEC Filings, the Company holds any leased real or personal property under valid and enforceable leases with no exceptions that would materially interfere with the use made or currently planned to be made thereof by the Company.

5.12. Certificates, Authorities and Permits. The Company possess adequate certificates, authorities or permits issued by appropriate governmental agencies or bodies necessary to conduct the business now operated by it, and the Company has not received any notice of proceedings relating to the revocation or modification of any such certificate, authority or permit that, if determined adversely to the Company, could reasonably be expected to have a Material Adverse Effect, individually or in the aggregate.

5.13. No Labor Disputes. No material labor dispute with the employees of the Company exists or, to the Company's Knowledge, is imminent.

5.14. Intellectual Property.

(a) All Intellectual Property of the Company is currently in compliance with all legal requirements (including timely filings, proofs and payments of fees) and is valid and enforceable. Except as listed on Schedule 5.14(a), no Intellectual Property of the Company which is necessary for the conduct of Company's businesses as currently conducted or as currently proposed to be conducted has been or is now involved in any cancellation, dispute or litigation, and, to the Company's Knowledge, no such action is threatened. Except as listed on Schedule 5.14(a), no patent of the Company has been or is now involved in any interference, reissue, re-examination or opposition proceeding.

(b) All of the licenses and sublicenses and consent, royalty or other agreements concerning Intellectual Property which are necessary for the conduct of the Company's business as currently conducted or as currently proposed to be conducted to which the Company is a party or by which any of its assets are bound (other than generally commercially available, non-custom, off-the-shelf software application programs having a retail acquisition price of less than $25,000 per license) (collectively, "**License Agreements**") are valid and binding obligations of the Company and, to the Company's Knowledge, the other parties thereto, enforceable in accordance with their terms, except to the extent that enforcement thereof may be limited by bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws affecting the enforcement of creditors' rights generally, and there exists no event or condition which will result in a material violation or breach of or constitute (with or without due notice or lapse of time or both) a default by the Company under any such License Agreement.

(c) The Company owns or has the valid right to use all of the Intellectual Property that is necessary for the conduct of the Company's business as currently conducted or as currently proposed to be conducted, free and clear of all liens, encumbrances, adverse claims or obligations to license all such owned Intellectual Property and Confidential Information, other than licenses entered into in the ordinary course of the Company's business. The Company has a valid and enforceable right to use all third-party Intellectual Property and Confidential Information used or held for use in the respective business of the Company as currently conducted or as currently proposed to be conducted.

(d) To the Company's Knowledge, the conduct of the Company's business as currently conducted and as currently proposed to be conducted does not and will not infringe any Intellectual Property rights of any third party or any confidentiality obligation owed to a third party. To the Company's Knowledge, the Intellectual Property and Confidential Information of the Company which are necessary for the conduct of Company's business as currently conducted or as currently proposed to be conducted are not being infringed by any third party. Except as set forth on Schedule 5.14(d), there is no litigation or order pending or outstanding or, to the Company's Knowledge, threatened or imminent, that seeks to limit or challenge or that concerns the ownership, use, validity or enforceability of any Intellectual Property or Confidential Information of the Company and the Company's use of any Intellectual Property or Confidential Information owned by a third party, and, to the Company's Knowledge, there is no valid basis for the same.

(e) The consummation of the transactions contemplated hereby will not result in the alteration, loss, impairment of or restriction on the Company's ownership or right to use any of the Intellectual Property or Confidential Information which is necessary for the conduct of the Company's respective business as currently conducted or as currently proposed to be conducted.

(f) To the Company's Knowledge, all software owned by the Company, and, to the Company's Knowledge, all software licensed from third parties by the Company, (i) is free from any material defect, bug, virus, or programming, design or documentation error; (ii) operates and runs in a reasonable and efficient business manner; and (iii) conforms in all material respects to the specifications and purposes thereof.

(g) The Company has taken reasonable steps to protect its rights in its Intellectual Property and Confidential Information. Each employee, consultant and contractor who has had access to Confidential Information which is necessary for the conduct of Company's business as currently conducted or as currently proposed to be conducted has executed an agreement to maintain the confidentiality of such Confidential Information and has executed appropriate agreements that are substantially consistent with the Company's standard forms therefor. To the Company's Knowledge, there has been no material disclosure of any of the Company's Confidential Information to any third party without the Company's consent.

5.15. Environmental Matters. The Company (i) is not in violation of any statute, rule, regulation, decision or order of any governmental agency or body or any court, domestic or foreign, relating to the use, disposal or release of hazardous or toxic substances or relating to the protection or restoration of the environment or human exposure to hazardous or toxic substances (collectively, "**Environmental Laws**"), (ii) neither owns nor operates any real property contaminated with any substance that is subject to any Environmental Laws, (iii) is not liable for any off-site disposal or contamination pursuant to any Environmental Laws, and (iv) is not subject to any claim relating to any Environmental Laws; which violation, contamination, liability or claim has had or could reasonably be expected to have a Material Adverse Effect, individually or in the aggregate; and there is no pending or, to the Company's Knowledge, threatened investigation that might lead to such a claim.

5.16. Litigation. Except as set forth in Schedule 5.16, there are no pending actions, suits or proceedings against or affecting the Company or any of its properties; and to the Company's Knowledge, no such actions, suits or proceedings are threatened or contemplated.

5.17. Financial Statements. The financial statements of the Company included in the SEC Filings fairly present the consolidated financial position of the Company as of the dates shown and its consolidated results of operations and cash flows for the periods shown, and such financial statements have been prepared in conformity with United States generally accepted accounting principles applied on a consistent basis. Except as set forth in the financial statements of the Company included in the SEC Filings filed prior to the date hereof, the Company has not incurred any liabilities, contingent or otherwise, except those which, individually or in the aggregate, have not had or could not reasonably be expected to have a Material Adverse Effect.

5.18. Insurance Coverage. The Company maintains in full force and effect insurance coverage and the Company reasonably believes such insurance coverage is adequate. The Company has no reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business on terms consistent with market for the Company's lines of business.

5.19. Brokers and Finders. Except as disclosed in Schedule 5.19, no Person will have, as a result of the transactions contemplated by this Agreement, any valid right, interest or claim against or upon the Company or Purdue for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of the Company.

5.20. No Directed Selling Efforts or General Solicitation. Neither the Company nor any Affiliate, nor any Person acting on its behalf has conducted any "general solicitation" or "general advertising" (as those terms are used in Regulation D) in connection with the offer or sale of any of the Securities.

5.21. No Integrated Offering. Neither the Company nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or sales of any Company security or solicited any offers to buy any security, under circumstances that would cause this offering of the Securities to be integrated with prior offerings by the Company for purposes of the 1933 Act, which would require the registration of any such securities under the 1933 Act or under the rules and regulations of the OTCBB on which any of the securities of the company are listed or designated, including circumstances that would adversely affect reliance by the Company on Section 4(2) of the 1933 Act for the exemption from the registration requirements imposed under Section 5 of the 1933 Act for the transactions contemplated hereby or would require such registration the 1933 Act.

5.22. Private Placement. Subject to the accuracy of the representations and warranties of Purdue contained in Section 6 hereof, the offer and sale of the Securities to Purdue as contemplated hereby is exempt from the registration requirements of the 1933 Act.

5.23. Questionable Payments. Neither the Company nor, to the Company's Knowledge, any of its current or former stockholders, directors, officers, employees, agents or other Persons acting on its behalf, has on behalf of the Company or in connection with the Company's business: (a) used any corporate funds for unlawful contributions, gifts, entertainment or other unlawful expenses relating to political activity; (b) made any direct or indirect unlawful payments to any governmental officials or employees from corporate funds; (c) established or maintained any unlawful or unrecorded fund of corporate monies or other assets; (d) made any false or fictitious entries on the books and records of the Company; (e) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment of any nature; or (f) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

5.24. Transactions with Affiliates. Except as set forth on Schedule 5.24, none of the officers or directors of the Company and, to the Company's Knowledge, none of the employees of the Company is presently a party to any transaction, or presently contemplated transaction, with the Company (other than for services as employees, officers and directors) that would be required to be disclosed pursuant to Item 404 of Regulation S-K promulgated under the 1933 Act.

5.25. Trading Compliance. The Common Stock is traded on the OTCBB and the Company has taken no action designed to, or which to the Company's Knowledge is likely to have the effect of, causing the Common Stock not to continue to be traded on the OTCBB. No order ceasing or suspending trading in any securities of the Company or prohibiting the issuance and/or sale of the Securities is in effect and no proceedings for such purpose are pending or threatened.

5.26. Acknowledgment Regarding Purdue's Purchase of Securities. The Company acknowledges that Purdue is not acting as a financial advisor or fiduciary of the Company (or in any similar capacity) with respect to this Agreement and the transactions contemplated hereby and any advice given by Purdue or any of their respective representatives or agents in connection with this Agreement and the transactions contemplated hereby is merely incidental to Purdue's purchase of the Securities.

5.27. Sarbanes-Oxley; Internal Accounting Controls. The Company is in material compliance with all provisions of the Sarbanes-Oxley Act of 2002 which are applicable to it as of the Closing Date. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with United States general accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company has established disclosure controls and procedures (as defined in 1934 Act Rules 13a-15(e) and 15d-15(e)) for the Company and designed such disclosure controls and procedures to ensure that material information relating to the Company, is made known to the certifying officers by others within those entities, particularly during the period in which the Company's most recently filed periodic report under the 1934 Act, as the case may be, is being prepared. The Company's certifying officers have evaluated the effectiveness of the Company's controls and procedures as of the date prior to the filing date of the most recently filed periodic report under the 1934 Act (such date, the "Evaluation Date"). The Company presented in its most recently filed periodic report under the 1934 Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no significant changes in the Company's internal controls (as such term is defined in Item 307(b) of Regulation S-K under the 1934 Act) or, to the Knowledge of the Company, in other factors that could significantly affect the Company's internal controls.

5.28. Solvency. Based on the financial condition of the Company as of the Closing Date after giving effect to the receipt by the Company of the proceeds from the sale of the Securities hereunder, the Company's assets do not constitute unreasonably small capital to carry on its business for the current fiscal year as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, and projected capital requirements and capital availability thereof. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). Except as set forth and explained on Schedule 5.28, the Company has no present intention to, nor does it have a present belief that it will need to, file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction. Schedule 5.28 sets forth all outstanding secured and unsecured Indebtedness of the Company, or for which the Company has commitments. The Company is not in default with respect to any Indebtedness.

5.29. Investment Company. The Company is not, and immediately after receipt of payment for the Securities will not be, an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

6. Representations and Warranties of Purdue. Purdue hereby represents and warrants to the Company on and as of the Closing Date, knowing and intending that the Company rely thereon, that:

6.1. Authorization. The execution, delivery and performance by Purdue of the Transaction Documents to which Purdue is a party have been duly authorized and will each constitute the valid and legally binding obligation of Purdue, enforceable against Purdue in accordance with their respective terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability, relating to or affecting creditors' rights generally.

6.2. Purchase Entirely for Own Account. The Securities to be received by Purdue hereunder will be acquired for Purdue's own account, not as nominee or agent, and not with a view to the resale or distribution of any part thereof in violation of the 1933 Act, and Purdue has no present intention of selling, granting any participation in, or otherwise distributing the same in violation of the 1933 Act. Purdue is not a registered broker dealer or an entity engaged in the business of being a broker dealer.

6.3. Investment Experience. Purdue acknowledges that it can bear the economic risk and complete loss of its investment in the Securities and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment contemplated hereby. Purdue has significant experience in making private investments, similar to the purchase of the Securities hereunder.

6.4. Disclosure of Information. Purdue has had an opportunity to receive all additional information related to the Company requested by it and to ask questions of and receive answers from the Company regarding the Company, its business and the terms and conditions of the offering of the Securities. Purdue acknowledges receipt of copies of and its satisfactory review of the SEC Filings. Neither such inquiries nor any other due diligence investigation conducted by Purdue shall modify, amend or affect Purdue's right to rely on the Company's representations and warranties contained in this Agreement.

6.5. Restricted Securities. Purdue understands that the Securities are characterized as "restricted securities" under the U.S. federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the 1933 Act only in certain limited circumstances.

6.6. Legends.

(a) It is understood that, except as provided below, certificates evidencing such Securities may bear the following or any similar legend:

> "THE SECURITIES REPRESENTED HEREBY MAY NOT BE TRANSFERRED UNLESS (I) SUCH SECURITIES HAVE BEEN REGISTERED FOR SALE PURSUANT TO THE SECURITIES ACT OF 1933, AS AMENDED, OR (II) THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL SATISFACTORY TO IT THAT SUCH TRANSFER MAY LAWFULLY BE MADE WITHOUT REGISTRATION UNDER THE SECURITIES ACT OF 1933 OR QUALIFICATION UNDER APPLICABLE STATE SECURITIES LAWS."

(b) If required by the authorities of any state in connection with the issuance of sale of the Securities, the legend required by such state authority.

(c) From and after the first anniversary of the Closing Date in the case of the Conversion Shares and the first anniversary of the date of exercise of a Warrant in the case of the Warrant Shares, provided, in each case, that Purdue is not an Affiliate of the Company and has not been an Affiliate for a period of ninety days, the Company shall, upon Purdue's written request, promptly cause certificates evidencing such Securities to be replaced with certificates which do not bear such restrictive legends. When the Company is required to cause unlegended certificates to replace previously issued legended certificates, if unlegended certificates are not delivered to an Investor within three (3) Business Days of submission by Purdue of legended certificate(s) to the Company's transfer agent together with a representation letter in customary form, the Company shall be liable to Purdue for liquidated damages equal to 1.5% of the aggregate purchase price of the Securities evidenced by such certificate(s) for each 30-day period (or portion thereof) beyond such three (3) Business Day-period that the unlegended certificates have not been so delivered.

(d) Purdue agrees that the removal of the restrictive legend from certificates representing Securities as set forth in this Section 6.6 is predicated upon the warranty of Purdue to sell any Securities pursuant to either the registration requirements of the Securities Act, including any applicable prospectus delivery requirements, or an exemption therefrom.

(e) Notwithstanding any restrictions on transfer set forth in this Section 6.6, Purdue may sell, transfer, assign, pledge or otherwise dispose of the Securities, in whole or in part, to any of its Associated Companies or any third party subject to (i) compliance with all applicable securities laws and the conditions set forth in this Section 6.6 and (ii) the delivery to the Company of such documentation as may be reasonably requested by the Company and reasonably necessary for the Company to obtain a legal opinion that such disposition may lawfully be made without registration under the Securities Act.

6.7. Accredited Investor. Purdue is an "accredited investor" as defined in Rule 501(a) of Regulation D.

6.8. No General Solicitation. Purdue did not learn of the investment in the Securities as a result of any "general advertising" or "general solicitation" as those terms are contemplated in Regulation D.

6.9. Brokers and Finders. Other than as disclosed on Schedule 5.19, no Person will have, as a result of the transactions contemplated by this Agreement, any valid right, interest or claim against or upon the Company or Purdue for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of Purdue.

7 Conditions to Closing.

7.1. Conditions to Purdue's Obligations. The obligation of Purdue to purchase the Securities at Closing is subject to the fulfillment to Purdue's satisfaction, on or prior to the Closing Date, of the following conditions, any of which may be waived in writing by Purdue:

(a) The representations and warranties made by the Company in Section 5 hereof that are qualified as to materiality shall be true and correct in all respects, and those not so qualified shall be true and correct in all material respects, at all times prior to and on the Closing Date. The Company shall have performed in all material respects all obligations herein required to be performed or observed by it on or prior to the Closing Date;

(b) The Company shall have obtained in a timely fashion any and all consents, permits, approvals, registrations and waivers necessary or appropriate for consummation of the purchase and sale of the Securities then being issued and sold, and all of which shall be and remain so long as necessary in full force and effect;

(c) The Company shall have executed, obtained and delivered an otherwise fully executed counterpart to the Registration Rights Agreement to Purdue;

(d) No judgment, writ, order, injunction, award or decree of or by any court, or judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any governmental authority, shall have been issued, and no action or proceeding shall have been instituted by any governmental authority, or self-regulatory organization enjoining or preventing the consummation of the transactions contemplated hereby or in the other Transaction Documents;

(e) The Company shall have delivered a Certificate, executed on behalf of the Company by its Chief Executive Officer or its Chief Financial Officer, dated as of the Closing Date, certifying to the fulfillment of the conditions specified in subsections (a), (b), (d), (f), (g) and (h) of this Section 7.1;

(f) The Company shall have delivered a Certificate, executed on behalf of the Company by its Secretary, dated as of the Closing Date, certifying the resolutions adopted by the Board of Directors of the Company approving the transactions contemplated by this Agreement and the other Transaction Documents and the issuance and sale of the Securities, certifying the current versions of the Certificate of Incorporation and Bylaws of the Company and certifying as to the signatures and authority of persons signing the Transaction Documents and all related documents on behalf of the Company;

(g) The Company shall have entered into and delivered to Purdue an exchange and consent agreement with the holders of the Series D Preferred Stock, dated on or before the Closing Date, whereby such holders consent to the issuance of the Preferred Shares and Warrants, the filing of the Certificate of Designations, agree to exchange all of their shares of Series D Preferred Stock, plus accumulated but unpaid dividends for shares of the Preferred Stock, and agree to waive any all liquidated damages such holders are due as of the Closing Date as a result of the Company's failure register shares of common stock issuable upon exercise of the Series D Warrants and common stock issuable upon conversion of the Series D Preferred Stock. Such consent and exchange agreement shall be substantially in the form attached hereto as Exhibit C;

(h) The Company shall have obtained and delivered to Purdue a duly executed consent from the holders of the Company's Series C Convertible Preferred Stock, dated on or before the Closing Date, whereby such holders consent to issuance of the Preferred Stock, the filing of the Certificate of Designations, such consent to be substantially in the form attached hereto as Exhibit D;

(i) Purdue shall have received the applicable Company Counsel Opinion;

(j) No stop order or suspension of trading shall have been imposed by any Person with respect to public trading in the Common Stock;

(k) The Company shall have delivered evidence satisfactory to Purdue of the filing of the Certificate of Designations with the Secretary of State of the State of Delaware; and

(l) The Company shall have delivered to Purdue a duly executed Collaboration Agreement, dated as of the Closing Date, substantially in the form attached hereto as Exhibit F.

7.2. Conditions to Obligations of the Company. The Company's obligation to sell and issue the Securities at Closing is subject to the fulfillment to the satisfaction by the Company on or prior to the Closing Date of the following conditions, any of which may be waived in writing by the Company:

(a) The representations and warranties made by Purdue in Section 6 hereof that are qualified as to materiality shall be true and correct in all respects, and those not so qualified shall be true and correct in all material respects, at all times prior to and on the Closing Date. Purdue shall have performed in all material respects all obligations herein required to be performed or observed by it on or prior to the relevant Closing;

(b) Purdue shall have delivered to the Company a duly executed Collaboration Agreement, dated as of the Closing Date, substantially in the form attached hereto as Exhibit F;

(c) Purdue shall have executed and delivered the Registration Rights Agreement to the Company;

(d) Purdue shall have delivered the Investment Amount to the Company as described in Section 4.2;

(e) No judgment, writ, order, injunction, award or decree of or by any court, or judge, justice or magistrate, including any bankruptcy court or judge, or any order of or by any governmental authority, shall have been issued, and no action or proceeding shall have been instituted by any governmental authority, or self-regulatory organization enjoining or preventing the consummation of the transactions contemplated hereby or in the other Transaction Documents; and

(f) Purdue shall have delivered to the Company a completed Purchaser Questionnaire in the form attached hereto as Exhibit G.

8. Covenants and Agreements of the Company.

8.1. Reservation of Common Stock. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of providing for the conversion of the Preferred Shares and the exercise of the Warrant, such number of shares of Common Stock as shall from time to time equal 100% of the number of shares sufficient to permit the conversion of the Preferred Shares and the exercise of the Warrant issued pursuant to this Agreement in accordance with their respective terms, without regard to any exercise limitations contained therein.

8.2. [Reserved.]

8.3. No Conflicting Agreements. The Company will not take any action, enter into any agreement or make any commitment that would conflict or interfere in any material respect with the Company's obligations to Purdue under the Transaction Documents.

8.4. Insurance. The Company shall not materially reduce the insurance coverages described in Section 5.18.

8.5. Compliance with Laws. The Company will comply in all material respects with all applicable laws, rules, regulations, orders and decrees of all governmental authorities, except to the extent non-compliance would not have a Material Adverse Effect.

8.6. Termination of Certain Covenants. The provisions of Sections 8.3 through 8.5 shall terminate and be of no further force and effect upon the date on which the Company's obligations under the Registration Rights Agreement to register and maintain the effectiveness of any registration statement covering the Registrable Securities (as such term is defined in the Registration Rights Agreement) shall terminate. The provisions of Sections 8.7 through 8.18 shall survive indefinitely.

8.7 Board Observer Rights. From and after the Closing until such time as Purdue or its Associated Companies are no longer a Requisite Holder Purdue shall have the right to designate one (1) observer to attend all meetings of the Company's Board of Directors, committees thereof and access to all information made available to members of the Board (the "**Purdue Observer**"). The Purdue Observer shall have the same rights as those who customarily attend such position. Notwithstanding the foregoing, the Company reserves the right to exclude the Purdue Observer from access to any material, meeting or portion thereof if the Company reasonably believes, that such access could result in a conflict of interest due to the actions of Purdue or its Associated Companies that trigger the right of the Company to terminate the Collaboration Agreement pursuant to Section 13.2.1 thereof, or believe, on advice of its counsel, that such exclusion is necessary to preserve attorney-client, work product or similar privilege. The Purdue Observer shall hold in confidence and trust and not use or disclose any confidential information provided to or learned by him or her in connection with the Purdue Observer's rights hereunder for any purpose other than the monitoring and administration of the transactions contemplated hereby, unless otherwise required by law, so long as such information is not in the public domain. If requested by the Company, the Purdue Observer shall execute a standard confidentiality agreement prior to attending any meetings. The initial Purdue Observer shall be Jim Dolan.

8.8. Trading. The Company shall promptly following the Closing Date take all actions necessary and continue to take all actions necessary as contemplated in this Agreement or otherwise to ensure that the Conversion Shares and the Warrant Shares are authorized to be traded on the OTCBB, including the timely filing of all SEC Filings as required under Section 8.15.

8.9. Use of Proceeds. The Company will use the proceeds from the sale of the Securities to fund its operating activities pursuant to the budget set forth in **Schedule 8.9**. The Company shall not use the proceeds from the sale of the Securities for (i) the repayment of any outstanding indebtedness for borrowed money of the Company, (ii) redemption or repurchase of any of the Company's equity securities. Furthermore, until the Company submits the New Drug Application concerning the use of NOV-002 for non-small cell lung cancer to the U.S. Food and Drug Administration, the Company shall not use its current assets or the proceeds from the sale of the Securities for (A) clinical activities other than those (x) relating to the Novelos Trials (as defined in the Collaboration Agreement attached as Exhibit F), (y) approved by the JCC (as defined in the Collaboration Agreement) and (z) relating to the New Drug Application concerning the use of NOV-002 for non-small cell lung cancer or (B) the payment of salaries, bonuses or other compensation other than those amounts set forth in **Schedule 8.9**.

8.10. Form 8-K Filing. The Company will file a Current Report on Form 8-K (the "**8-K**") with the SEC describing the terms of the Transaction Documents (and including as exhibits to such Current Report on Form 8-K the material Transaction Documents (including, without limitation, this Agreement and the form of Warrant)). The 8-K will be filed within four (4) Business Days of signing of this Agreement.

8.11. Furnishing of Information. As long as Purdue own Securities, the Company covenants to timely file (or obtain extensions in respect thereof and file within the applicable grace period) all reports required to be filed by the Company after the date hereof pursuant to the 1934 Act. As long as Purdue owns Preferred Shares, the Warrant or the Warrant Shares, if the Company is not required to file reports pursuant to such laws, it will prepare and furnish to the Investors and make publicly available in accordance with Rule 144(c) promulgated by the SEC pursuant to the 1933 Act, as such Rule may be amended from time to time, such information as is required for the Investors to sell the Preferred Shares and Warrant Shares under Rule 144 promulgated by the SEC pursuant to the 1933 Act, as such Rule may be amended from time to time ("**Rule 144**"). The Company further covenants that it will take such further action as Purdue may reasonably request, all to the extent required from time to time to enable Purdue to sell the Preferred Shares and Warrant Shares without registration under the 1933 Act and without the volume restrictions imposed by Rule 144.

8.12. Buy-In. If the Company shall fail for any reason or for no reason to issue to Purdue unlegended certificates within three (3) Business Days of receipt of documents necessary for the removal of the legend set forth above (the "**Deadline Date**"), then, in addition to all other remedies available to Purdue, if on or after the Business Day immediately following such three (3) Business Day period, Purdue or Purdue's broker, acting on behalf of Purdue, purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by the holder of shares of Common Stock that Purdue anticipated receiving from the Company without any restrictive legend, then the Company shall, within three (3) Business Days after Purdue's request and in Purdue's sole discretion, either (i) pay cash to Purdue in an amount equal to Purdue's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased (the "**Buy-In Price**"), at which point the Company's obligation to deliver such certificate (and to issue such shares of Common Stock) shall terminate, or (ii) promptly honor its obligation to deliver to Purdue a certificate or certificates representing such shares of Common Stock and pay cash to Purdue in an amount equal to the excess (if any) of the Buy-In Price over the product of (a) such number of shares of Common Stock, times (b) the closing bid price on the Deadline Date.

8.13. No Integration. Neither the Company nor any of its Affiliates, nor any Person acting on its or their behalf shall, directly or indirectly, make any offers or sales of any Company security or solicit any offers to buy any security, under circumstances that would adversely affect reliance by the Company on Section 4(2) of the 1933 Act for the exemption from the registration requirements imposed under Section 5 of the 1933 Act for the transactions contemplated hereby or would require such registration the 1933 Act.

8.14. SEC Filings. The Company shall timely file all SEC Filings and ensure that they comply as to form in all material respects with the requirements of the 1934 Act and do not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements made therein, in the light of the circumstances under which they are made, not misleading.

8.15. Financial Statements. The financial statements of the Company included in each SEC Filing shall fairly present the consolidated financial position of the Company as of the dates shown and its consolidated results of operations and cash flows for the periods shown, and such financial statements shall be prepared in conformity with United States generally accepted accounting principles applied on a consistent basis. Except as set forth in the financial statements of the Company included in the SEC Filings, the Company has not incurred any liabilities, contingent or otherwise, except those which, individually or in the aggregate, have not had, or could not reasonably be expected to have a Material Adverse Effect.

8.16. Compliance with Applicable Law. The Company shall use its best efforts (i) to comply in all material respects with all statutes, laws, regulations, rules, judgments, orders and decrees of all governmental entities applicable to it that relate to its business, (ii) to maintain all permits that are required in order to permit it to carry on its business as it is presently conducted and (iii) to comply in all material respects with all applicable provisions of the Sarbanes-Oxley Act of 2002.

8.17. Warrant Expiration Notice. The Company will use best efforts to send Purdue a notice 30 days in advance of the expiration of the Warrant.

8.18. Cooperation. The Company agrees to use commercially reasonable efforts to cooperate with Purdue in selling its Securities pursuant to Rule 144.

8.19. Exemption from Investment Company Act of 1940. The Company shall conduct its business in a manner so that it will not become subject to the Investment Company Act of 1940.

.

9. Survival and Indemnification.

9.1. Survival. Subject to Section 9.6, all representations, warranties, covenants and agreements contained in this Agreement shall be deemed to be representations, warranties, covenants and agreements as of the date hereof and shall survive the Closing Date until the third anniversary thereof; provided, however, that the provisions contained in: (a) Sections 5.4, 9.1, 9.2 and 9.3 hereof shall survive indefinitely; and (b) Sections 5.10 and 5.15 shall survive until 90 days after the applicable statute of limitations.

9.2. Indemnification. The Company agrees to indemnify and hold harmless, Purdue and its Associated Companies and the directors, officers, employees and agents of Purdue and its Associated Companies, from and against any and all losses, claims, damages, liabilities and expenses (including without limitation reasonable attorney fees and disbursements and other expenses incurred in connection with investigating, preparing or defending any action, claim or proceeding, pending or threatened and the costs of enforcement hereof) (collectively, "**Losses**") to which such Person may become subject as a result of any breach of representation, warranty, covenant or agreement made by, or to be performed on the part of, the Company under the Transaction Documents, and will reimburse any such Person for all such amounts as they are incurred by such Person.

9.3. Conduct of Indemnification Proceedings. Promptly after receipt by any Person (the **"Indemnified Person**") of notice of any demand, claim or circumstances which would or might give rise to a claim or the commencement of any action, proceeding or investigation in respect of which indemnity may be sought pursuant to Section 9.2, such Indemnified Person shall promptly notify the Company in writing and the Company shall assume the defense thereof, including the employment of counsel reasonably satisfactory to such Indemnified Person, and shall assume the payment of all fees and expenses; provided, however, that the failure of any Indemnified Person so to notify the Company shall not relieve the Company of its obligations hereunder except to the extent that the Company is actually and materially prejudiced by such failure to notify. In any such proceeding, any Indemnified Person shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such Indemnified Person unless: (i) the Company and the Indemnified Person shall have mutually agreed to the retention of such counsel; (ii) in the reasonable judgment of counsel to such Indemnified Person (A) representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them, or (B) the Company shall have failed to promptly assume the defense of such proceeding. The Company shall not be liable for any settlement of any proceeding effected without its written consent, which consent shall not be unreasonably withheld, delayed or conditioned, but if settled with such consent, or if there be a final judgment for the plaintiff, the Company shall indemnify and hold harmless such Indemnified Person from and against any Losses by reason of such settlement or judgment. Without the prior written consent of the Indemnified Person, which consent shall not be unreasonably withheld, delayed or conditioned, the Company shall not effect any settlement of any pending or threatened proceeding in respect of which any Indemnified Person is or could have been a party and indemnity could have been sought hereunder by such Indemnified Party, unless such settlement includes an unconditional release of such Indemnified Person from all liability arising out of such proceeding.

10. Miscellaneous.

10.1. Right of Purdue to Participate in Future Transactions. Purdue will have a right to participate, on the terms and conditions set forth in this Section 10.1, in all sales by the Company of any of Common Stock or Common Stock Equivalents in each capital raising transaction, if any, that occurs at any time when the Preferred Stock, Warrant or any instrument issued upon transfer or split up thereof, remains outstanding (in whole or in part), other than any such sale that is a public offering underwritten on a firm commitment basis and registered with the SEC under the 1933 Act with proceeds to the Company of at least twenty (20) million U.S. Dollars, other than a Exempt Issuance. For any such transaction during such period, the Company shall give at least ten (10) Business Days advance written notice to Purdue prior to any offer or sale of any of the Company's securities in such transaction by providing to Purdue a term sheet which (i) contains all significant business terms of such proposed transaction, (ii) is sufficiently detailed so as to reasonably permit Purdue the opportunity to determine whether or not to exercise its rights under this Section 10.1 and (iii) is at least as detailed as the term sheet or summary of such transaction as the Company shall furnish to any offeree or broker in such transaction. Purdue shall have the right to participate in such proposed transaction and to purchase its and its Associated Companies' Pro Rata Share of such securities which are the subject of such proposed transaction for the same consideration and on the same terms and conditions as contemplated for sales to third parties in such transaction (or such lesser portion thereof as specified by Purdue). If Purdue elects to exercise its rights hereunder for a particular transaction, it shall deliver written notice to the Company within ten (10) Business Days following receipt from the Company of the notice and term sheet meeting the requirements of this Section 10.1, which notice from Purdue shall be conditional upon (i) Purdue's receipt of satisfactory definitive documents for such transaction from the Company if the Company has not furnished final, definitive documents for such transaction to Purdue at or before the time the Company gives such notice of such transaction to Purdue, and (ii) the satisfaction of the other conditions precedent to the obligations of purchasers generally in such transaction to complete such transaction. If, subsequent to the Company giving notice to Purdue hereunder but prior to any of (a) Purdue exercising its right to participate, (b) the expiration of the four Business Day period without response from Purdue or (c) the rejection of such offer for such financing by Purdue, the terms and conditions of the proposed sale to third parties in such transaction are changed from those disclosed in the term sheet provided to Purdue, the Company shall be required to provide a new notice and term sheet meeting the requirements of this Section 10.1, reflecting such revised terms, to Purdue hereunder and Purdue shall have the right, which must be exercised within ten (10) Business Days of the date Purdue receives such new notice and such revised term sheet, to exercise its rights to purchase the securities on such changed terms and conditions and otherwise as provided hereunder. If Purdue does not exercise its rights hereunder with respect to a proposed transaction within the period or periods provided, or affirmatively declines to engage in such proposed transaction with the Company, then the Company may proceed with such proposed transaction on the same terms and conditions as noticed to Purdue (assuming Purdue has consented to the transaction, if required, pursuant to this Agreement and such transaction does not violate any other term or provision of the Transaction Documents), provided that if such proposed transaction is not consummated within 180 days following the Company's notice hereunder or the terms and conditions of the proposed sale to third parties are changed from those disclosed in the term sheet, then the rights hereunder shall again be afforded to Purdue for such proposed transaction. The rights and obligations of this Section 10.1 shall in no way limit or restrict the other rights of Purdue pursuant to this Agreement. Notwithstanding anything herein to the contrary, failure of Purdue to affirmatively elect in writing to participate in any proposed transaction within the required time frames shall be deemed to be the equivalent of Purdue's decision not to participate in such proposed transaction. Notwithstanding the foregoing, this Section 10.1 shall not apply in respect of an Exempt Issuance. The rights of Purdue under this Section 10.1 shall apply to all capital raising transactions described in Section 10.1 that occur during the period specified in this Section 10.1.

10.2. Successors and Assigns. This Agreement may not be assigned by a party hereto without the prior written consent of the Company and Purdue; provided, however, that Purdue may assign its rights and delegate its duties hereunder in whole or in part to a third party acquiring some or all of its Securities in a private transaction with the prior written consent of the Company, after notice duly given by Purdue to the Company, such consent not to be reasonably withheld by the Company and that no such assignment or obligation shall affect the obligations of Purdue hereunder; and provided further that Purdue may assign its rights and delegate its duties hereunder in whole or in part to an Associated Company acquiring some or all of its Securities in a private transaction without the prior written consent of the Company, after notice duly given by Purdue to the Company and that no such assignment or obligation shall affect the obligations of Purdue hereunder. The provisions of this Agreement shall inure to the benefit of and be binding upon the respective permitted successors and assigns of the parties. Except for provisions of this Agreement expressly to the contrary, nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement.

10.3. Counterparts; Faxes. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed via facsimile, which shall be deemed an original.

10.4. Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

10.5. Notices. Unless otherwise provided, any notice required or permitted under this Agreement shall be given in writing and shall be deemed effectively given as hereinafter described (i) if given by personal delivery, then such notice shall be deemed given upon such delivery, (ii) if given by telex or telecopier, then such notice shall be deemed given upon receipt of confirmation of complete transmittal, (iii) if given by mail, then such notice shall be deemed given upon the earlier of (A) receipt of such notice by the recipient or (B) three (3) Business Days after such notice is deposited in first class mail, postage prepaid, and (iv) if given by a nationally recognized overnight air courier, then such notice shall be deemed given one (1) Business Day after delivery to such carrier. All notices shall be addressed to the party to be notified at the address as follows, or at such other address as such party may designate by ten (10) days' advance written notice to the other party:

If to the Company:

Novelos Therapeutics, Inc.
One Gateway Center, Suite 504
Newton, MA 02458
USA

Attention: Chief Executive Officer
Fax: (617) 964-6331

With a copy to:

Foley Hoag LLP
Seaport World Trade Center West
155 Seaport Boulevard
Boston, MA 02210
USA
Attn: Paul Bork
Fax: (617) 832-7000

If to Purdue:

Purdue Pharma L.P.
One Stamford Forum
201 Tresser Blvd.
Stamford, CT 06901-3431
USA
Attention: Edward B. Mahony, Chief Financial Officer

With a copy to:

Chadbourne & Parke LLP
30 Rockefeller Plaza
New York, New York 10112
USA
Telefacsimile: (212) 541-5369
Attention: Stuart D. Baker

10.6. Consent. Purdue hereby consents to the filing with the Secretary of State of the State of Delaware, following the issuance of the Series E Preferred Stock pursuant to this Agreement, of a Certificate of Elimination, pursuant to which all matters set forth in the Certificate of Designations, Preferences and Rights of Series D Convertible Preferred Stock of Novelos Therapeutics, Inc. with respect to the Series D Preferred Stock will be eliminated from the Company's Certificate of Incorporation and the shares that were designated as Series D Preferred Stock will be returned to the status of authorized but unissued shares of preferred stock of the Company, without designation as to series, in the form attached hereto as Exhibit I.

10.7. Amendments and Waivers. This Agreement shall not be amended and the observance of any term of this Agreement shall not be waived (either generally or in a particular instance and either retroactively or prospectively) without the prior written consent of the Company and Purdue**.** Any amendment or waiver effected in accordance with this Section 10.7 shall be binding upon each holder of any Securities purchased under this Agreement at the time outstanding, each future holder of all such Securities, and the Company.

10.8. Publicity. Except as provided in Section 10.8, no public release or announcement concerning the transactions contemplated hereby shall be issued by the Company or Purdue without the prior consent of the Company (in the case of a release or announcement by Purdue) or Purdue (in the case of a release or announcement by the Company) (which consents shall not be unreasonably delayed or withheld), except as such release or announcement may be required by law or the applicable rules or regulations of any securities exchange or securities market on which the Securities are then listed and trading, in which case the Company or Purdue, as the case may be, shall allow the other, to the extent reasonably practicable in the circumstances, reasonable time to comment on such release or announcement in advance of such issuance.

10.9. Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof but shall be interpreted as if it were written so as to be enforceable to the maximum extent permitted by applicable law, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the parties hereby waive any provision of law which renders any provision hereof prohibited or unenforceable in any respect.

10.10. Entire Agreement. This Agreement, including the Exhibits and Disclosure Schedules, and the other Transaction Documents constitute the entire agreement among the parties hereof with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, both oral and written, between the parties with respect to the subject matter hereof and thereof. Prior drafts or versions of this Agreement shall not be used to interpret this Agreement.

10.11. Further Assurances. The parties shall execute and deliver all such further instruments and documents and take all such other actions as may reasonably be required to carry out the transactions contemplated hereby and to evidence the fulfillment of the agreements herein contained.

10.12. Governing Law; Consent to Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **THE COMPANY AND PURDUE HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING RELATING TO OR ARISING OUT OF THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY.**

[Signature Page Follows]

Signature Page

IN WITNESS WHEREOF, each of the undersigned has executed this Securities Purchase Agreement or caused its duly authorized officers to execute this Securities Purchase Agreement as of the date first above written.

NOVELOS THERAPEUTICS, INC.

By: /s/ Harry S. Palmin
Name: Harry S. Palmin
Title: President and CEO

PURDUE PHARMA L.P.

By: Purdue Pharma Inc.,
its general partner

By: /s/ Edward B. Mahony
Name: Edward B. Mahony
Title: Executive Vice President,
Chief Financial Officer

Exhibits

Exhibit A	Form of Certificate of Designations
Exhibit B	Form of Warrant
Exhibit C	Form of Agreement to Exchange and Consent
Exhibit D	Form of Consent of Series C Holders
Exhibit E	Form of Company Counsel Opinion
Exhibit F	Form of Collaboration Agreement
Exhibit G	Form of Purchaser Questionnaire
Exhibit H	Form of Registration Rights Agreement
Exhibit I	Form of Series D Certificate of Elimination

Schedules

Schedule 4.2	Company Wire Instructions
Schedule 5.3	Capitalization
Schedule 5.5	Consents
Schedule 5.7(a)	Material Adverse Changes
Schedule 5.9	Conflicts
Schedule 5.10	Taxes
Schedule 5.11	Title to Properties
Schedule 5.14(a)	Intellectual Property
Schedule 5.14(d)	IP Litigation
Schedule 5.16	Litigation
Schedule 5.19	Brokers and Finders
Schedule 5.24	Affiliate Transactions
Schedule 5.28	Indebtedness
Schedule 8.9	Novelos Budget

Exhibit A

Form of Certificate of Designations

[See Exhibit 4.1 to this filing]

Exhibit B

Form of Warrant

[See Exhibit 4.2 to this filing]

Exhibit C

Form of Agreement to Exchange and Consent

[See Exhibit 10.3 to this filing]

Exhibit D

Form of Consent of Series C Holders

NOVELOS THERAPEUTICS, INC.

CONSENT AND AGREEMENT OF HOLDERS OF SERIES C PREFERRED STOCK

This Consent and Agreement (the "Agreement"), dated as of February 10, 2009, is entered into by and among Novelos Therapeutics, Inc., a Delaware corporation (the "Company"), and each of the signatories hereto (collectively, the "Series C Investors") (the Company and Series C Investors are sometimes referred to herein individually as "Party" and collectively as the "Parties").

WHEREAS, each of the Series C Investors is the holder of shares of the Company's Series C 8% Cumulative Convertible Preferred Stock, $.00001 par value per share (the "Series C Preferred Stock");

WHEREAS, the Series C Preferred Stock's Certificate of Designations ("Series C Certificate of Designations") provides that it is senior with respect to the payment of dividends and liquidation preference to all shares of the Company's capital stock other than the Company's Series B Convertible Preferred Stock, $.00001 par value per share (the "Series B Preferred Stock"), entitled to seniority as to the payment of dividends or liquidation preference in relation to the Series C Preferred Stock;

WHEREAS, the Company previously exchanged all of the issued and outstanding shares of Series B Preferred Stock for shares of the Company's Series D Convertible Preferred Stock, par value $0.00001 per share (the "Series D Preferred Stock");

WHEREAS, the Series C Investors have previously consented and agreed that the Series D Preferred Stock would be senior to the Series C Preferred Stock with respect to the payment of dividends and liquidation preferences;

WHEREAS, pursuant to a securities purchase agreement (the "Purdue Securities Purchase Agreement") substantially in the form attached hereto as Exhibit A, the Company expects to issue and sell 200 shares of a newly created series of the Company's preferred stock, designated Series E Convertible Preferred Stock, par value $0.00001 per share (the "Series E Preferred Stock") to Purdue Pharma L.P., ("Purdue"), which Series E Preferred Stock shall have the relative rights, privileges and preferences set forth in the Certificate of Designations, Rights and Preferences of the Series E Convertible Preferred Stock of Novelos Therapeutics, Inc., in the form attached hereto as Exhibit B (the "Series E Certificate of Designations") and this Agreement is a condition to closing as stated in the Purdue Securities Purchase Agreement; and

WHEREAS, as a condition to closing the Purdue Securities Purchase Agreement, the Company and the holders of Series D Preferred Stock (the "Series D Investors") are entering into a Series D Preferred Stock Consent and Agreement to Exchange pursuant to which each outstanding share of Series D Preferred Stock and accumulated dividends thereon will be exchanged (the "Series D Exchange") for no more than 1.083 shares of Series E Preferred Stock and as a condition of consummating the Series D Exchange, the Series D Investors have required that the Company enter into this Agreement;

NOW, THEREFORE, in consideration of the promises referred to below, the Series C Investors, hereby agree with the Company, severally and not jointly, as follows:

1. Consent and Acknowledgement.

(a) Each of the Series C Investors hereby consents to the filing of the Series E Certificate of Designations, the execution of the Series D Preferred Stock Consent Exchange Agreement substantially in the form attached hereto as Exhibit C (the "Series D Exchange Agreement"), the execution of the Purdue Securities Purchase Agreement and the consummation of the Series D Exchange.

(b) Each of the Series C Investors hereby consents to the filing, with the Secretary of State of the State of Delaware, of a Certificate of Elimination pursuant to which all matters set forth in the Certificate of Designations, Preferences and Rights of Series B Convertible Preferred Stock of Novelos Therapeutics, Inc. with respect to the Company's Series B Convertible Preferred Stock, $0.00001 (the "Series B Preferred Stock") will be eliminated from the Company's Certificate of Incorporation and the shares that were designated as Series B Preferred Stock will be returned to the status of authorized but unissued shares of preferred stock of the Company, without designation as to series, in the form attached hereto as Exhibit D (the "Series B Certificate of Elimination").

(c) Each of the Series C Investors hereby consents to the filing, with the Secretary of State of the State of Delaware, following consummation of the Series D Exchange, of a Certificate of Elimination pursuant to which all matters set forth in the Series D Certificate of Designations with respect to the Series D Preferred Stock will be eliminated from the Company's Certificate of Incorporation and the shares that were designated as Series D Preferred Stock will be returned to the status of authorized but unissued shares of preferred stock of the Company, without designation as to series, in the form attached hereto as Exhibit E (the "Series D Certificate of Elimination").

(e) Each of the Series C Investors hereby acknowledges and agrees that it will not be entitled to an adjustment to either the conversion price of the shares of Series C Preferred Stock or an adjustment to the exercise price of warrants issued to it in connection with the sale of Series A Preferred Stock, as a result of the Series D Exchange or the sale of Series E Preferred Stock to Purdue. For the avoidance of doubt, this acknowledgement is limited to the transactions contemplated hereby and does not affect the rights, privileges and preferences of the Series C Preferred Stock, except as expressly provided herein.

2. Seniority of Series E Preferred Stock. Each of the Series C Investors hereby agree that the Series E Preferred Stock will be entitled to seniority as to the payment of dividends and liquidation preference in relation to the Series C Preferred Stock and that all references to Series B Preferred Stock in the Series C Certificate of Designations shall be deemed to be references to the Series E Preferred Stock.

3. Transferees. Each of the Series C Investors hereby agree that any transferees of any Series C Preferred Stock, other than a transferee who is already a Party, shall be required as a condition of such transfer to agree in writing that they will receive and hold such shares of Series C Preferred Stock subject to the provisions of this Agreement.

4. Representations and Warranties of Company. The Company represents and warrants to and agrees with each Series C Investor that:

(a) after the issuance of the Series E Preferred Stock and the filing of the Series E Certificate of Designations, the Series C Preferred Stock shall rank junior to the Series E Preferred Stock but shall rank senior to any and all other outstanding preferred stock or equity securities of the Company;

(b) Following the Series D Exchange, the Company will not reissue any shares of Series B Preferred Stock or Series D Preferred Stock.

5. Further Assurances. Each Party hereto shall do and perform or cause to be done and performed all such further acts and shall execute and deliver all such other agreements, certificates, instruments and documents as any other Party hereto reasonably may request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby and thereby.

6. Choice of Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to conflicts of laws principles that would result in the application of the substantive laws of another jurisdiction. Any action brought by either Party against the other concerning the transactions contemplated by this Agreement shall be brought only in the civil or state courts of New York or in the federal courts located in New York County. THE PARTIES AND THE INDIVIDUALS EXECUTING THIS AGREEMENT AND OTHER AGREEMENTS REFERRED TO HEREIN OR DELIVERED IN CONNECTION HEREWITH ON BEHALF OF THE COMPANY AGREE TO SUBMIT TO THE JURISDICTION OF SUCH COURTS AND WAIVE TRIAL BY JURY. The prevailing Party shall be entitled to recover from the other Party its reasonable attorney's fees and costs. In the event that any provision of this Agreement or any other agreement delivered in connection herewith is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any such provision which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision of any agreement.

7 . Notices. Unless otherwise provided, any notice required or permitted under this Agreement shall be given in writing and shall be deemed effectively given as hereinafter described (i) if given by personal delivery, then such notice shall be deemed given upon such delivery, (ii) if given by telex or telecopier, then such notice shall be deemed given upon receipt of confirmation of complete transmittal, (iii) if given by mail, then such notice shall be deemed given upon the earlier of (A) receipt of such notice by the recipient or (B) three (3) Business Days after such notice is deposited in first class mail, postage prepaid, and (iv) if given by a nationally recognized overnight air courier, then such notice shall be deemed given one (1) Business Day after delivery to such carrier. All notices shall be addressed to the Party to be notified at the address as follows, or at such other address as such Party may designate by ten (10) days' advance written notice to the other Party:

If to the Company:

Novelos Therapeutics, Inc.
One Gateway Center, Suite 504
Newton, MA 02458
Attention: Chief Executive Officer
Fax: (617) 964-6331

With a copy to:

Foley Hoag LLP
Seaport World Trade Center West
155 Seaport Boulevard

Boston, MA 02210
Attn: Paul Bork
Fax: (617) 832-7000

If to any of the Series C Investors:

To the addresses set forth on the signature page hereto.

With a copy to:

Grushko & Mittman, P.C.
551 Fifth Avenue, Suite 1601
New York, NY 10176
Attn: Edward Grushko, Esq.
Fax: (212) 697-3575

8. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which taken together shall constitute one and the same Agreement. Counterpart signature pages to this Agreement transmitted by facsimile transmission, by electronic mail in "portable document format" (".pdf") form, or by any other electronic means intended to preserve the original graphic and pictorial appearance of a document, will have the same effect as physical delivery of the paper document bearing an original signature.

9. This Agreement shall be null and void and of no further force and effect if the filing of the Series E Certificate of Designations, the execution of the Series D Exchange Agreement, the execution of the Purdue Securities Purchase Agreement and the consummation of the Series D Exchange do not occur on or before 5:00 p.m., New York time, on February 27, 2009.

IN WITNESS WHEREOF, each of the Parties has executed this Agreement as of the date first written above.

NOVELOS THERAPEUTICS, INC.

By: _____
Name: Harry S. Palmin
Title: President and Chief Executive Officer

LONGVIEW FUND, LP

By: _____
Name: _____
Title: _____
Address:

LONGVIEW EQUITY FUND, LP

By: _____
Name: _____
Title: _____
Address:

SUNRISE EQUITY PARTNERS, LP

By: _____
Name: _____
Title: _____
Address:

LONGVIEW INTERNATIONAL EQUITY FUND, LP

By: _____
Name: _____
Title: _____
Address:

Exhibit E

Form of Company Counsel Opinion

February ___, 2009

Purdue Pharma L.P.
One Stamford Forum
201 Tresser Blvd.
Stamford, CT 06901-3431

Re: Securities Purchase Agreement

Ladies and Gentlemen:

We have acted as counsel for Novelos Therapeutics, Inc., a Delaware corporation (the "Company"), in connection with the negotiation of (i) the Securities Purchase Agreement by and between Purdue Pharma, L.P. (the "Purchaser") and the Company dated as of the date hereof (the "Purchase Agreement") and (ii) the Registration Rights Agreement between the Purchaser, the Company and certain other parties thereto dated as of the date hereof (the "Registration Rights Agreement" and, together with the Purchase Agreement, the "Transaction Documents"). The Purchase Agreement provides for the issuance and sale by the Company of (i) 200 shares of a newly created series of the Company's Preferred Stock, designated "Series E Convertible Preferred Stock," par value $0.00001 per share (the "Preferred Stock"), which Preferred Stock shall have the rights, preferences and privileges set forth in the Certificate of Designations, Preferences and Rights of such Preferred Stock (the "Certificate of Designations"), shall have a stated value of $50,000.00 per share and shall initially be convertible into shares of the Company's Common Stock, par value $0.00001 per share (the "Common Stock"), at a price of $0.65 per share for an aggregate of 15,384,615 shares of Common Stock, and (ii) a warrant to purchase up to 9,230,769 shares of Common Stock of the Company (the "Warrant"). The shares of Common Stock issuable upon conversion of the Preferred Stock are referred to herein as the "Conversion Shares" and the shares of Common Stock issuable upon exercise of the Warrant are referred to herein as the "Warrant Shares". All terms used herein have the meanings defined for them in the Purchase Agreement unless otherwise defined herein.

This opinion is furnished to you pursuant to the Purchase Agreement. In rendering the opinions expressed below, we have examined originals or copies of: (i) the Transaction Documents, (ii) the Warrant, (iii) the Certificate of Designations, (iv) the Company's Certificate of Incorporation, as amended through the date hereof ("Certificate of Incorporation"), (v) the Company's By-laws, as in effect on the date hereof (the "By-laws"), (vi) a Secretary's Certificate from the Company, dated as of the date hereof, issued pursuant to Section 7.1(f) of the Purchase Agreement and (vii) a Certificate executed by the Company's Chief Executive Officer or its Chief Financial Officer, dated as of the date hereof, and issued pursuant to Section 7.1 of the Purchase Agreement, and we have examined and considered such corporate records, certificates and matters of law as we have deemed appropriate as a basis for our opinions set forth below. In rendering the opinions expressed below, we have relied, as to factual matters, upon the representations and warranties of the Company contained in the Transaction Documents.

Based upon and subject to the foregoing, we are of the opinion that:

1. The Company is a corporation validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as it is currently being conducted, to own, lease and operate its properties and assets, and to enter into and perform its obligations under the Transaction Documents and the Warrant. The Company is qualified as a foreign corporation to do business and is in good standing in the Commonwealth of Massachusetts.

2. The authorized capital stock of the Company consists of 150,000,000 shares of Common Stock and 7,000 shares of preferred stock, $.00001 par value per share.

3. The execution, delivery and performance by the Company of the Transaction Documents, the issuance of the Preferred Stock and the Warrant, the issuance of the Conversion Shares upon due conversion of the Preferred Stock and the issuance of the Warrant Shares upon due exercise of the Warrant have been duly authorized or reserved for issuance by all requisite corporate action on the part of the Company and do not require any further approval of its directors or stockholders.

4. Each of the Transaction Documents and the Warrant has been duly executed and delivered by the Company and constitutes a valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

5. The Certificate of Designations has been duly executed on behalf of the Company and filed with the Secretary of State of the State of Delaware.

6. The execution and delivery by the Company of each of the Transaction Documents, the issuance of the Preferred Stock and Warrant, the issuance of the Conversion Shares upon due conversion of the Preferred Stock and the issuance of the Warrant Shares upon due exercise of the Warrant and the performance by the Company of the Transaction Documents will not violate or contravene or be in conflict with (a) any provision of the Certificate of Incorporation or By-laws; (b) any provision of the General Corporation Law of the State of Delaware and any provision of any federal or Massachusetts law, rule or regulation applicable to the Company in transactions of the nature contemplated by the Transaction Documents and the Warrant; (c) any order, judgment or decree of any court or other governmental agency which is known to us and which is binding on the Company or any of its property; or (d) any agreement, indenture or other written agreement or understanding to which the Company is a party which has been identified as a material agreement in the certificate of the Chief Executive Officer of the Company attached hereto (collectively, "Material Agreements") or cause any acceleration under, or cause the creation of any lien, charge or encumbrance upon the property or assets of the Company pursuant to any of the Material Agreements.

7. No further consents, approvals, authorizations, registrations, declarations or filings are required to be obtained or made by the Company from or with any federal or Massachusetts governmental authority or pursuant to the General Corporation Law of the State of Delaware or from any other Person under any Material Agreement in order for it to execute and deliver each of the Transaction Documents, to issue the Preferred Stock and Warrant, to issue the Conversion Shares upon due conversion of the Preferred Stock, to issue the Warrant Shares upon due exercise of the Warrant and to perform its obligations under the Transaction Documents, other than those consents, approvals, authorizations, registrations, declarations or filings that have already been obtained and remain in full force and effect and except for (a) the filing of a Form D (the "Form D") with the Securities and Exchange Commission pursuant to Regulation D promulgated under the Securities Act of 1933, as amended (the "Securities Act") and (b) the filing of the Form D with requisite state jurisdictions.

8. The shares of Preferred Stock, upon payment as provided in the Purchase Agreement, will be validly issued, fully paid and non-assessable. The Conversion Shares and the Warrant Shares have been duly authorized and, upon issuance and delivery upon conversion or exercise, as the case may be, will be validly issued, fully paid and nonassessable.

9. Assuming the accuracy of the representations and warranties of the Purchaser set forth in Section 6 of the Purchase Agreement, the offer, issuance and sale to the Purchaser pursuant to the Purchase Agreement of (i) the Preferred Stock and Warrant, (ii) the Conversion Shares if the Preferred Stock were converted by the Purchaser on the date hereof and (iii) the Warrant Shares issuable upon exercise of the Warrant if the Warrant were exercised by the Purchaser on the date hereof, are exempt from the registration requirements of the Securities Act.

10. The issuance of the Preferred Stock, Warrant, Conversion Shares upon due conversion of the Preferred Stock and Warrant Shares upon due exercise of the Warrant are not subject to any preemptive or similar statutory rights under the General Corporation Law of the State of Delaware, the Certificate of Incorporation or the By-laws, or similar contractual rights granted by the Company (except for any such contractual rights as have been waived) pursuant to any Material Agreement.

11. The Company is not, and as a result of and immediately upon consummation of the transactions contemplated herein will not be an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

The opinions expressed herein are subject to the following assumptions, limitations, qualifications and exceptions:

(a) We have made such legal and factual examinations and inquiries as we have deemed advisable or necessary for the purpose of rendering this opinion.

(b) We have examined, among other things, originals or copies of such corporate records of the Company, certificates of public officials and such other documents and questions of law that we consider necessary or advisable for the purpose of rendering this opinion. In such examination we have assumed the genuineness of all signatures or original documents, the authenticity and completeness of all documents submitted to us as originals, the conformity to original documents of all copies submitted to us as copies thereof, the legal capacity of natural persons, and the due execution and delivery of all documents (except as to due execution and delivery by the Company) where due execution and delivery are a prerequisite to the effectiveness thereof.

(c) For purposes of this opinion, we have assumed that you have all requisite power and authority, and have taken any and all necessary corporate action, to execute and deliver the Transaction Documents, and we are assuming that the representations and warranties made by the Purchaser in the Transaction Documents and pursuant thereto are true and correct.

(d) Our opinion is based upon our knowledge of the facts as of the date hereof and assumes no event will take place in the future which would affect the opinions set forth herein other than future events contemplated by the Transaction Documents. We assume no duty to communicate with you with respect to any change in law or facts which comes to our attention hereafter.

(e) In rendering the opinion in paragraph 1 with respect to legal existence and good standing of the Company in the State of Delaware, we have relied solely upon a certificate of the Secretary of State of Delaware and we express such opinion as of the date of such certificate. In rendering the opinion in paragraph 1 with respect to the qualification and good standing of the Company in The Commonwealth of Massachusetts, we have relied solely upon a certificate of the Secretary of State of Massachusetts and we express such opinion as of the date of such certificate. We express no opinion as to the tax good standing of the Company.

We have made such examination of Massachusetts law, federal law, and the Delaware General Corporation Law as we have deemed necessary for the purpose of this opinion. In rendering opinions concerning the Delaware General Corporation Law, we have, with your consent, relied exclusively upon a review of published statutes. We express no opinion herein as to the laws of any jurisdiction other than The Commonwealth of Massachusetts, the federal laws of the United States of America and the Delaware General Corporation Law. We note that the Transaction Documents and the Warrant purport to be governed by the laws of the State of New York. To the extent that any of the opinions expressed above relate to or may require application of any law of the State of New York, we have assumed, with your permission, that the applicable New York law is equivalent to Massachusetts law.

The opinions expressed herein are qualified to the extent that (1) the enforceability of any provisions of the Transaction Documents or any instrument or of any right granted thereunder may be subject to or affected by any bankruptcy, reorganization, insolvency, fraudulent conveyance, moratorium or other similar law of general application relating to or affecting the rights or remedies of creditors generally, which law may be in effect from time to time; (2) the remedy of specific performance or any other equitable remedy may be unavailable or may be withheld as a matter of judicial discretion; (3) equitable principles and principles of public policy may be applied in construing or enforcing the provisions of the Transaction Documents or of any other agreement, instrument or document; and (4) the enforceability, validity or binding effect of any remedial provision of the Transaction Documents may be limited by applicable law which may limit particular rights and remedies. In addition, the opinions expressed herein are subject to the qualification that the enforcement of any of your rights are in all cases subject to your implied duty of good faith and fair dealing.

We express no opinion herein as to the validity or enforceability of any provision of the Transaction Documents or any other instrument or document to the extent that such provision purports to (1) constitute a waiver by the Company of any statutory right except where advance waiver is expressly permitted by the relevant statute; (2) require the Company to indemnify or to hold harmless you or any other person or entity from the consequences of any negligent or other wrongful act or omission of you or such other person or entity; (3) provide for indemnification or contribution by the Company in connection with the Transaction Documents, the transactions contemplated thereby or otherwise to the extent such indemnification or contribution may be limited by applicable laws or as a matter of public policy; or (4) constitute a waiver of any right to a hearing on or adjudication of any issue or the right to trial by jury.

This opinion shall be interpreted in accordance with the Legal Opinions Principles issued by the Committee on Legal Opinions of the American Bar Association's Business Law Section as published in 53 Business Lawyer 831 (May 1998).

This opinion is furnished to the Purchaser solely for its benefit in connection with the transactions described above and, except as otherwise expressly set forth herein, may not be relied upon by any other person or for any other purpose without our prior written consent.

Very truly yours,

FOLEY HOAG LLP

By: _____
A Partner

Exhibit F

Form of Collaboration Agreement

[To be filed]

Exhibit G

Novelos Therapeutics, Inc.
Confidential Purchaser Questionnaire

Before any sale of Securities by Novelos Therapeutics, Inc. can be made to you, this Questionnaire must be completed and returned to Novelos Therapeutics, One Gateway Center, Suite 504, Newton, MA 02458; Attention: Joanne Protano.

1. IF YOU ARE AN INDIVIDUAL PLEASE FILL IN THE IDENTIFICATION QUESTIONS IN (A) IF YOU ARE AN ENTITY PLEASE FILL IN THE IDENTIFICATION QUESTIONS IN (B)

A. INDIVIDUAL IDENTIFICATION QUESTIONS

Name
(Exact name as it should appear on stock certificate)

Residence Address

Home Telephone Number

Fax Number

Date of Birth

Social Security Number

B. IDENTIFICATION QUESTIONS FOR ENTITIES

Name (Exact name as it will appear on stock certificate)

Address of Principal Place of Business

State (or Country) of Formation or Incorporation

Contact Person

Telephone Number ( )

Type of Entity
(corporation, partnership, trust, etc.)

Was entity formed for the purpose of this investment? Yes: ____ No: ____

2. **DESCRIPTION OF INVESTOR**

The following information is required to ascertain whether you would be deemed an "accredited investor" as defined in Rule 501 of Regulation D under the Securities Act. Please check whether you are any of the following:

☐ a corporation or partnership with total assets in excess of $5,000,000, not organized for the purpose of this particular investment

☐ private business development company as defined in Section 202(a)(22) of the Investment Advisers Act of 1940, a U.S. venture capital fund which invests primarily through private placements in non-publicly traded securities and makes available (either directly or through co-investors) to the portfolio companies significant guidance concerning management, operations or business objectives

☐ a Small Business Investment Company licensed by the U.S. Small Business Administration under Section 301(c) or (d) of the Small Business Investment Act of 1958

☐ an investment company registered under the Investment Company Act of 1940 or a business development company as defined in Section 2(a)(48) of that Act

☐ a trust not organized to make this particular investment, with total assets in excess of $5,000,000 whose purchase is directed by a sophisticated person as described in Rule 506(b)(2)(ii) of the Securities Act of 1933 and who completed item 4 below of this questionnaire

☐ a bank as defined in Section 3(a)(2) or a savings and loan association or other institution defined in Section 3(a)(5)(A) of the Securities Act of 1933 acting in either an individual or fiduciary capacity

☐ an insurance company as defined in Section 2(13) of the Securities Act of 1933

☐ an employee benefit plan within the meaning of Title I of the Employee Retirement Income Security Act of 1974 (i) whose investment decision is made by a fiduciary which is either a bank, savings and loan association, insurance company, or registered investment advisor, or (ii) whose total assets exceed $5,000,000, or (iii) if a self-directed plan, whose investment decisions are made solely by a person who is an accredited investor and who completed Part I of this questionnaire;

☐ a charitable, religious, educational or other organization described in Section 501(c)(3) of the Internal Revenue Code, not formed for the purpose of this investment, with total assets in excess of $5,000,000

☐ an entity not located in the U.S. none of whose equity owners are U.S. citizens or U.S. residents

☐ a broker or dealer registered under Section 15 of the Securities Exchange Act of 1934

☐ a plan having assets exceeding $5,000,000 established and maintained by a government agency for its employees

☐ an individual who had individual income from all sources during each of the last two years in excess of $200,000 or the joint income of you and your spouse (if married) from all sources during each of such years in excess of $300,000 and who reasonably excepts that either your own income from all sources during the current year will exceed $200,000 or the joint income of you and your spouse (if married) from all sources during the current year will exceed $300,000

☐ an individual whose net worth as of the date you purchase the securities offered, together with the net worth of your spouse, be in excess of $1,000,000

☐ an entity in which all of the equity owners are accredited investors

3. **BUSINESS, INVESTMENT AND EDUCATIONAL EXPERIENCE**

Occupation

Number of Years

Present Employer

Position/Title

Educational Background

Frequency of prior investment (check one in each column):

	Stocks & Bonds	**Venture Capital Investments**
Frequently		
Occasionally		
Never		

4. **SIGNATURE**

The above information is true and correct. The undersigned recognizes that the Company and its counsel are relying on the truth and accuracy of such information in reliance on the exemption contained in Subsection 4(2) of the Securities Act of 1933, as amended, and Regulation D promulgated thereunder. The undersigned agrees to notify the Company promptly of any changes in the foregoing information which may occur prior to the investment.

Executed at _____, on _____, 2009

_____

(Signature)

Exhibit H

Form of Registration Rights Agreement

[See Exhibit 10.2 to this filing]

Exhibit I

Form of Series D Certificate of Elimination

[See Exhibit 4.1 to this filing]

Schedule 4.2

Company Wire Instructions

Bank:	Citizens Bank RI
Bank Address:	1 Citizens Drive, Riverside, RI 02915, USA 617-527-8059
Account Name:	Novelos Therapeutics, Inc.
Account Address:	One Gateway Center, Suite 504 Newton, MA 02458, USA
ABA (Routing) #:	011500120
Swift Code:	CTZIUS33
Account #:	1132895348

Schedule 5.3

Capitalization

5.3(a)(i) At the date hereof authorized capital stock of the Company consists of 150,000,000 shares of $.00001 par value common stock and 7,000 shares of preferred stock.

5.3(a)(ii) At the date hereof there are 43,975,656 shares of common stock outstanding and 685.5 shares of preferred stock outstanding.

5.3(a)(iii) At the date hereof there are 7,279,825 shares of common stock issuable pursuant to the Company's stock plans.

5.3(a)(iv) At the date hereof, the following shares are reserved for future issuance upon exercise of stock options or warrants or conversion of preferred stock:

Stock Options	7,279,825
Warrants	28,102,033
Preferred stock	36,829,192
Total shares reserved for future issuance	72,211,050

5.3(a)

As of the date hereof, the Company has the following outstanding warrants:

Offering	Outstanding	Exercise Price	Expiration Date
2005 Bridge Loans	720,000	$ 0.625	April 1, 2010
2005 PIPE - Placement agents and finders	1,046,143	$ 0.65	August 9, 2010
Series A Preferred (1):			
Investors – September 30, 2005 closing	909,090	$ 0.65	September 30, 2010
Investors – October 3, 2005 closing	60,606	$ 0.65	October 3, 2010
2006 PIPE – Investors and placement agents	11,267,480	$ 2.00	March 7, 2011
Series B Preferred:			
Investors	7,500,000	$ 0.65	April 11, 2013
Placement agents	900,000	$ 1.25	May 2, 2012
Series C Exchange	1,333,333	$ 1.25	May 2, 2012
Series D Preferred	4,365,381	$ 0.65	April 11, 2013
Total	28,102,033		

As of the date hereof, the Company has the following outstanding stock options:

Issued pursuant to the 2000 Option Plan	56,047
Issued during 2004 and 2005 pursuant to no formalized plan	2,453,778
Issued pursuant to the 2006 Option Plan	4,770,000
Total outstanding options	7,279,825

As of the date hereof, the Company has the following convertible preferred stock outstanding:

272 shares of Series C Preferred Stock - The shares of Series C preferred stock are convertible into a total of 5,021,537 shares of common stock. The Series C Preferred Stock has an annual dividend rate of 8% until October 1, 2008 and thereafter has an annual dividend rate of 20%. The dividends are payable quarterly after all outstanding dividends on the Series D Preferred Stock have been paid. Additional details regarding the Series C preferred stock may be found in the Certificate of Designations of Series C Cumulative Convertible Preferred Stock and the Agreement to Exchange and Consent dated May 1, 2007.

413.5 shares of Series D Preferred Stock - The shares of Series D Preferred Stock are convertible any time after issuance at the option of the holder at $0.65 per share of common stock into a total of 31,807,655 shares of common stock. If there is an effective registration statement covering the shares of common stock underlying the Series D Preferred Stock and the VWAP, as defined in the Series D Certificate of Designations, of the Company's common stock exceeds $2.00 for 20 consecutive trading days, then the outstanding Series D Preferred Stock will automatically convert into common stock at the conversion price then in effect. The conversion price will be subject to adjustment for stock dividends, stock splits or similar capital reorganizations. The holders of Series D Preferred Stock are entitled to vote on all matters on which the holders of common stock are entitled to vote. The Series D Preferred Stock has an annual dividend rate of 9%, payable semi-annually on June 30 and December 31. Such dividends may be paid in cash or in registered shares of the Company's common stock at the Company's option, subject to certain conditions. The Series D Preferred Stock ranks senior to all other outstanding series of preferred stock and common stock as to the payment of dividends and the distribution of assets upon voluntary or involuntary liquidation, dissolution or winding up of the Company's affairs. The holders of the Series D Preferred Stock have certain registration rights that are described in the Registration Rights Agreement dated April 11, 2008, the Registration Rights Agreement dated May 2, 2007 and the Amendment to Registration Rights Agreement dated April 11, 2008. Additional details regarding the Series D Preferred Stock and the rights of the Series D stockholders may be found in Certificate of Designations of Series D Convertible Preferred Stock and the Securities Purchase Agreement dated March 26, 2008.

As of the date hereof, the following rights existed with respect to shares of common stock issued in connection with the Securities Purchase Agreement dated August 14, 2008:

On August 15, 2008, the Company sold 4,615,384 shares of its common stock to two related accredited investors for gross proceeds of approximately $3 million, pursuant to a securities purchase agreement (the "Common Stock Purchase Agreement") dated August 14, 2008. The Common Stock Purchase Agreement provides that on and after six months following the closing, if there is not an available exemption from Rule 144 under the Securities Act to permit the sale of the common stock by the purchasers, then the Company will use its best efforts to file a registration statement (the "Registration Statement") under the Securities Act with the SEC covering the resale of the common stock. It further provides that the Company will use its best efforts to maintain the effectiveness of the Registration Statement until one year from closing or until all the common stock has been sold or transferred, whichever occurs first. The Common Stock Purchase Agreement also provides that if, prior to the public announcement of the conclusion of the Company's NOV-002 Phase III clinical trial in non-small cell lung cancer (the "Announcement Date"), the Company completes a Subsequent Equity Financing (as defined therein) and the holders of shares of our Series D Preferred Stock (the "Series D Shares") receive a reduction in the effective conversion price or exercise price, as applicable, of the Series D Shares or common stock purchase warrants issued in connection with the issuance of the Series D Shares or receive additional shares of common stock, as consideration in connection with any consent given by the holders of the Series D Shares, then the purchasers shall be entitled to receive substantially equivalent consideration, on a proportional basis, in the form of additional shares of common stock based on the formula detailed in the Common Stock Purchase Agreement.

The following is a listing of the Company's documents relating to the rights of stockholders, or holders of securities convertible into or exercisable for the Company's common stock as related to the Company's warrants, stock options, convertible preferred stock and common stock described above.

	EDGAR Reference		
Description	Form	Filing Date	Exhibit No.
Agreement and plan of merger among Common Horizons, Inc., Nove Acquisition, Inc. and Novelos Therapeutics, Inc. dated May 26, 2005	8-K	June 2, 2005	99.2
Agreement and plan of merger between Common Horizons and Novelos Therapeutics, Inc. dated June 7, 2005	10-QSB	August 15, 2005	2.2
Amended and Restated Certificate of Incorporation filed as Exhibit A to the Certificate of Merger merging Nove Acquisition, Inc. with and into Novelos Therapeutics, Inc. dated May 26, 2005	10-QSB	August 10, 2007	3.1

Description	EDGAR Reference Form	Filing Date	Exhibit No.
Certificate of Merger merging Common Horizons, Inc. with and into Novelos Therapeutics, Inc. dated June 13, 2005	10-QSB	August 10, 2007	3.2
Certificate of Correction dated March 3, 2006	10-QSB	August 10, 2007	3.3
Certificate of Amendment to Amended and Restated Certificate of Incorporation dated July 16, 2007	10-QSB	August 10, 2007	3.4
Certificate of Designations of Series B convertible preferred stock	10-QSB	August 10, 2007	3.5
Certificate of Designations of Series C cumulative convertible preferred stock	10-QSB	August 10, 2007	3.6
Certificate of Designations of Series D convertible preferred stock	8-K	April 14, 2008	4.1
Certificate of Elimination Series A 8% Cumulative Convertible Preferred Stock of Novelos Therapeutics, Inc.	8-K	April 14, 2008	4.2
By-Laws	8-K	June 17, 2005	2
2000 Stock Option and Incentive Plan	SB-2	November 16, 2005	10.2
Form of 2004 non-plan non-qualified stock option	SB-2	November 16, 2005	10.3
Form of non-plan non-qualified stock option used from February to May 2005	SB-2	November 16, 2005	10.4
Form of non-plan non-qualified stock option used after May 2005	SB-2	November 16, 2005	10.5
Form of common stock purchase warrant issued in March 2005	SB-2	November 16, 2005	10.6

Description	EDGAR Reference Form	Filing Date	Exhibit No.
Form of securities purchase agreement dated May 2005	8-K	June 2, 2005	99.1
Form of subscription agreement dated September 30, 2005	8-K	October 3, 2005	99.1
Form of Class A common stock purchase warrant dated September 30, 2005	8-K	October 3, 2005	99.3
Form of securities purchase agreement dated March 2, 2006	8-K	March 3, 2006	99.2
Form of common stock purchase warrant dated March 2006	8-K	March 3, 2006	99.3
2006 Stock Incentive Plan	10-QSB	November 6, 2006	10.1
Form of Incentive Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan	8-K	December 15, 2006	10.1
Form of Non-Statutory Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan	8-K	December 15, 2006	10.2
Form of Non-Statutory Director Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan	8-K	December 15, 2006	10.3
Securities Purchase Agreement dated April 12, 2007	10-QSB	May 8, 2007	10.1
Letter Amendment dated May 2, 2007 to the Securities Purchase Agreement	10-QSB	May 8, 2007	10.2
Registration Rights Agreement dated May 2, 2007	10-QSB	May 8, 2007	10.3
Agreement to Exchange and Consent dated May 1, 2007	10-QSB	May 8, 2007	10.5

Description	EDGAR Reference Form	Filing Date	Exhibit No.
Form of Common Stock Purchase Warrant dated May 2, 2007 issued pursuant to the Securities Purchase Agreement dated April 12, 2007	10-QSB	May 8, 2007	4.1
Form of Common Stock Purchase Warrant dated May 2, 2007 issued pursuant to the Agreement to Exchange and Consent dated May 2, 2007	10-QSB	May 8, 2007	4.2
Securities Purchase Agreement dated March 26, 2008	8-K	April 14, 2008	10.1
Amendment to Securities Purchase Agreement dated April 9, 2008	8-K	April 14, 2008	10.2
Registration Rights Agreement dated April 11, 2008	8-K	April 14, 2008	10.3
Form of Common Stock Purchase Warrant dated April 11, 2008 issued pursuant to the Securities Purchase Agreement dated March 26, 2008	8-K	April 14, 2008	4.3
Warrant Amendment Agreement dated April 11, 2008	8-K	April 14, 2008	10.5
Amendment to Registration Rights Agreement dated April 11, 2008	8-K	April 14, 2008	10.4
Securities Purchase Agreement dated August 14, 2008	8-K	August 18, 2008	10.1

Schedule 5.3 (continued)

5.3(b) Adjustments

The following table sets forth the pro forma capitalization of the Company on a fully diluted basis giving effect to (i) the issuance of Preferred Shares and the Warrant at the time of Closing, (ii) any adjustments in other securities resulting from the issuance of the Preferred Shares and the Warrant at the time of Closing, and (iii) the exercise or conversion of all outstanding securities:

NVLT - - Capital Structure - Pro forma for Purdue Transaction

	Common Stock Equivalents				
	Prior to Transaction	Pro Forma	Exer./Conv. Price	Total cash	Warrant Expiration
Cash, cash equivalents[1]				$ 1,262,452	
Common stock outstanding	43,975,656	43,975,656			
Preferred stock					
Series C	5,021,537	5,021,537	$ 0.65		
Series E (prior D holders)[2]	31,807,655	34,264,799	$ 0.65		
Series E (Purdue)[3]		15,384,615	$ 0.65	$ 9,100,000	
Warrants					
2005 PIPE Placement Agent	1,046,143	1,046,143	$ 0.65	$ 679,993	August 2010
Series C	969,696	969,696	$ 0.65	$ 630,302	October 2010
2006 PIPE[4]	11,267,480	12,379,880	$ 1.82	$ 22,531,382	March 2011
2005 Bridge Financing (Pre-IPO)	720,000	720,000	$ 0.625	cashless	April 2010
Series C	1,333,333	1,333,333	$ 1.25	cashless	May 2012
Series D[5]	12,765,381	12,765,381	$ 0.65	$ 8,297,498	12/31/2015
Series E (Purdue)[6]		9,230,769	$ 0.65	$ 6,000,000	12/31/2015
Stock options outstanding	7,279,825	7,279,825	$ 0.5987	$ 4,358,720	
				$ **52,860,346**	
Fully diluted shares	**116,186,706**	**144,371,634**			

1 Represents cash at 12/31/08.
2 Pro forma includes 2,457,144 shares of common stock issuable upon conversion of 31.9428750 shares of Series E preferred stock to be issued in exchange for dividends accrued from 4/1/08 through 2/9/09.
3 Pro forma represents common stock issuable upon the conversion of 200 shares of Series E preferred stock to be issued to Purdue in the proposed transaction. Estimated proceeds are net of estimated transaction costs.
4 Pro forma includes additional 1,112,400 warrants to be issued pursuant to anti-dilution provisions; decrease in warrant strike price from $2.00 to $1.82.
5 Change in expiration and removal of forced exercise provision in connection with proposed transaction.
6 Pro forma includes warrants to be issued in connection with proposed transaction.

5.3(c) Arrangements that provide rights for any Person to purchase an equity interest in the Company consist of the stock options and warrants, previously disclosed in schedule 5.3(a).

5.3(d) None.

Schedule 5.5

Consents

In connection with the closing of the preferred stock and warrant financing, we have received consents from the holders of the Company's Series C Convertible Preferred Stock and holders of the Company's Series D Preferred Stock.

Schedule 5.7(a)

Material Adverse Changes

None.

Schedule 5.9

Conflicts

The Series C Preferred Stock's Certificate of Designations contains certain prohibitions on amendments to the Company's Certificate of Incorporation which would create a series of capital stock entitled to seniority as to the payment of dividends or liquidation preference in relation to the Series C Preferred Stock other than the Series B Preferred Stock.

We have received a consent from the holders of the Company's Series C Convertible Preferred Stock whereby each holder has consented to the issuance of the Series D Preferred Stock and the filing of the Certificate of Designations setting forth the relative rights, privileges and preferences of the Series E Preferred.

The Series D Preferred Stock's Certificate of Designations contains certain prohibitions on the issuance of a security that is senior as to the rights and preferences of the Series D.

We have received an executed consent and exchange agreement from the holders of the Company's Series D Convertible Preferred Stock whereby each holder has consented to the issuance of the Series E Preferred Stock and Warrants and the filing of the Certificate of Designations setting forth the relative rights, privileges and preferences of the Series E Preferred and will exchange all shares of Series D Preferred Stock for shares of Series E Preferred Stock effective upon Closing.

Schedule 5.10

Taxes

None.

Schedule 5.11

Title to Properties

None.

Schedule 5.14 (a)

Intellectual Property

None.

Schedule 5.14 (d)

IP Litigation

None.

Schedule 5.16

Litigation

None.

Schedule 5.19

Brokers and Finders

Ferghana Partners, Inc. will be entitled to receive a cash payment of 7% of the proceeds received by the Company in connection with the sale of Preferred Stock and Warrants.

Schedule 5.24

Affiliate Transactions

None.

Schedule 5.28

Indebtedness

None.

Schedule 8.9

Novelos Budget

	2009				2010			
Compound / Indication	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
NOV-002 / Lung Cancer	Track----------	Ph3: SPA+Fast				NDA	FDA App---	
NOV-002 / Breast Cancer	2----------	Phase						
NOV-002 / Cancers[1]	Additional Phase 2s----------							
NOV-002 / Anemia [1]				Phase	2----------			
NOV-205 / Hepatitis C[1]		Next trial----------						
Burn estimate[2]	4.3	3.2	2.8	3.5	1.1	1.2	0.9	0.9
cumulative		7.5	10.3	13.8	15.0	16.1	17.0	17.9
funding requirement	3.1	6.3	9.1	**12.6**	13.8	14.9	15.8	16.7
Cash – **12/31/08**	1.2							

Notes

[1]Not included in budget; initiation subject to additional funding

[2]Estimated cash burn in 2009 assumes vendor obligations are paid in full by year-end. Quarterly burn in 2009 may shift between quarters depending on the timing of vendor payments.

The above 2009 annual budget includes:	Total (millions)
General & administrative costs (excluding rent, utilities and overhead) [3]	1.3
Research & development - administrative [4]	1.8
	3.1

[3]Administrative costs include $1.9 million in employee salaries and bonuses.

[4] Research & development administrative costs include approximately $250,000 in consultant costs

EXECUTION COPY

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (the "**Agreement"**) is made and entered into as of this 11th day of February, 2009 by and among Novelos Therapeutics, Inc., a Delaware corporation (the "**Company**"), Purdue Pharma L.P., a Delaware limited partnership ("**Purdue**"), the "**Series D Investors**" named in that certain Securities Purchase Agreement, dated March 26, 2008, as amended on April 9, 2008, by and among the Company and the Series D Investors (the "**Series D Securities Purchase Agreement**"), and the holders of the Series B Warrants (as defined below) (the Company, Purdue, the Series D Investors and the holders of the Series B Warrants are sometimes referred to herein individually as "Party" and collectively as the "Parties"). Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Series E Securities Purchase Agreement.

WHEREAS, pursuant to a Securities Purchase Agreement dated herewith (the "**Series E Securities Purchase Agreement**") the Company has agreed to issue and sell to Purdue, and Purdue has agreed to purchase from the Company, 200 shares of Preferred Stock and warrants (the "**Series E Warrants**") to purchase up to 15,384,615 shares of the Company's common stock, $.00001 par value per share (the "**Common Stock**"), upon the terms and conditions set forth in the Series E Securities Purchase Agreement;

WHEREAS, pursuant to a Consent and Agreement to Exchange dated herewith ("the **Exchange Agreement**") the Series D Investors have agreed to exchange all outstanding shares of Series D Preferred Stock, plus accrued but unpaid dividends, for shares of Series E Preferred Stock upon the terms and conditions set forth in the Exchange Agreement;

WHEREAS, the Series D Investors and the holders of the Series B Warrants are parties to a Registration Rights Agreement dated April 11, 2008 (the "**Series D Registration Agreement**") and the Company, the Series D Investors and the holders of the Series B Warrants desire to terminate the Series D Registration Agreement in its entirety;

WHEREAS, the Company has agreed to register the shares of Common Stock issuable upon conversion of the Preferred Stock and the shares of Common Stock issuable upon exercise of the Series B Warrants, the Series D Warrants (as defined below) and the Series E Warrants in accordance with the terms of this Agreement;

The Parties hereby agree as follows:

1. Certain Definitions.

As used in this Agreement, the following terms shall have the following meanings:

"**FINRA**" shall mean the Financial Industry Regulatory Authority.

"**Holders**" shall mean Purdue, the Series D Investors and the holders of the Series B Warrants and any Affiliate or permitted transferee thereof who is a subsequent holder of any Registrable Securities.

"**Preferred Stock**" means the Series E Convertible Preferred Stock, par value $0.00001 per share.

"**Prospectus**" shall mean the prospectus included in any Registration Statement, as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement and by all other amendments and supplements to the prospectus, including post-effective amendments and all material incorporated by reference in such prospectus.

"**Register**," "**registered**" and "**registration**" refer to a registration made by preparing and filing a Registration Statement or similar document in compliance with the 1933 Act, and the declaration or ordering of effectiveness of such Registration Statement or document.

"**Registrable Securities**" shall mean the shares of Common Stock issuable (i) upon the conversion of the Preferred Stock (excluding 12,000,000 shares of Common Stock issuable upon conversion of the Preferred Stock which are registered pursuant to a prior Registration Statement (File No. 143263 as amended and supplemented)), (ii) upon the exercise of the Series E Warrants, (iii) upon the exercise of the Series D Warrants; (iv) upon the exercise of the Series B Warrants, including any shares of Common Stock that become issuable upon conversion or exercise of the Preferred Stock or Warrants, as the case may be, as a result of stock splits, stock dividends or similar transactions with respect to the Common Stock (other than shares of Common Stock registered pursuant to the aforesaid prior Registration Statement) and any Common Stock issued as stock dividends on the Preferred Stock; provided, that, a security shall cease to be a Registrable Security upon a sale pursuant to a Registration Statement.

"**Registration Statement**" shall mean any registration statement of the Company filed under the 1933 Act that covers the resale of any of the Registrable Securities pursuant to the provisions of this Agreement, amendments and supplements to such Registration Statement, including post-effective amendments, and all exhibits and all material incorporated by reference in such Registration Statement.

"**Series B Warrants**" shall mean the warrants to purchase up to 7,500,000 shares of Common Stock dated May 2, 2007, as amended, issued pursuant to that certain Securities Purchase Agreement dated as of April 12, 2007, as amended on May 2, 2007.

"**Series D Warrants**" shall mean the warrants to purchase up to 4,365,381 shares of Common Stock dated April 11, 2008 issued pursuant to the Series D Securities Purchase Agreement.

"**Warrants**" shall mean collectively the Series B Warrants, Series D Warrants and Series E Warrants.

2. Termination of Series D Registration Rights Agreement.

The Series D Investors and holders of the Series B Warrants by their execution of this Agreement hereby agree and acknowledge that the Series D Registration Agreement has been superseded and replaced in its entirety by this Agreement and that the Series D Investors and the holders of the Series B Warrants shall have no further rights under the Series D Registration Agreement.

3. Registration.

(a) Registration Statement. Promptly following the six month anniversary of the Closing Date of the purchase and sale of the Preferred Stock and Series E Warrants contemplated by the Series E Securities Purchase Agreement, but in no event after five (5) business days after the six month anniversary of the Closing Date (the "**Filing Deadline**"), the Company shall prepare and file with the SEC one Registration Statement on Form S-1 covering the resale of all of the Registrable Securities without regard to any limitation on exercise of the Warrants. Such Registration Statement shall include the plan of distribution attached hereto as Exhibit A. Such Registration Statement also shall cover, to the extent allowable under the 1933 Act and the rules promulgated thereunder (including Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock dividends or similar transactions with respect to the Registrable Securities. The Registration Statement (and each amendment or supplement thereto, and each request for acceleration of effectiveness thereof) shall be provided in accordance with Section 4(c) to the Holders and their respective counsel prior to its filing or other submission. If a Registration Statement covering the Registrable Securities is not filed with the SEC on or prior to the Filing Deadline, the Company will make pro rata payments to each Holder, as liquidated damages and not as a penalty, in an amount equal to 1.5% of the aggregate amount invested by such Holder for each 30-day period or pro rata for any portion thereof following the date by which such Registration Statement should have been filed for which no Registration Statement is filed with respect to the Registrable Securities. Such payments shall be in partial compensation to the Holders, and shall not constitute the Holders' exclusive remedy for such events. Such payments shall be made to each Holder in cash. The amounts payable as liquidated damages pursuant to this paragraph shall be payable in lawful money of the United States, and amounts payable as liquidated damages shall be paid within two (2) Business Days of the last day of each such 30-day period during which the Registration Statement should have been filed for which no Registration Statement was filed with respect to the Registrable Securities.

(b) Expenses. The Company will pay all expenses associated with each registration, including filing and printing fees, counsel and accounting fees and expenses, costs associated with clearing the Registrable Securities for sale under applicable state securities laws and listing fees, but excluding the fees and disbursements of more than one law firm serving as counsel to the Holders, and discounts, commissions, fees of underwriters, selling brokers, dealer managers or similar securities industry professionals with respect to the Registrable Securities being sold.

(c) Effectiveness.

(i) The Company shall use its best efforts to have the Registration Statement declared effective not later than the earlier to occur of (x) the 60th day immediately following the Filing Deadline, (y) five (5) Business Days following the Company's receipt of a no-review letter from the SEC relating to the Registration Statement, or (z) the 90th day following the Filing Deadline if the Company's receives a review from the SEC relating to the Registration Statement; provided, however, if the Registration Statement is not declared effective within the time period set forth above, the Company shall continue to use its best efforts to have the Registration Statement declared effective as soon as possible thereafter.

(ii) For not more than fifteen (15) consecutive days or for a total of not more than thirty (30) days in any twelve (12) month period, the Company may delay the disclosure of material non-public information concerning the Company, by terminating or suspending effectiveness of any registration contemplated by this Section 3, if the disclosure of such material non-public information at the time is not, in the good faith opinion of the Company, in the best interests of the Company (an "**Allowed Delay**"); provided, that the Company shall promptly (a) notify the Holders in writing of the existence of (but in no event, without the prior written consent of a Holder, shall the Company disclose to such Holder any of the facts or circumstances regarding) material non-public information giving rise to an Allowed Delay, and (b) advise the Holders in writing to cease all sales under the Registration Statement until the end of the Allowed Delay.

(d) Underwritten Offering. If any offering pursuant to a Registration Statement filed pursuant to Section 3(a) hereof involves an underwritten offering, the Company shall have the right to select an investment banker and manager to administer the offering, subject to the reasonable satisfaction of the Requisite Holders.

4 . Company Obligations. The Company will use its best efforts to effect the registration of the Registrable Securities in accordance with the terms hereof, and pursuant thereto the Company will, as expeditiously as possible:

(a) use its best efforts to cause such Registration Statement to become effective and to remain continuously effective for a period that will terminate upon the earlier of (i) the date on which all Registrable Securities covered by such Registration Statement, as amended from time to time, have been sold and (ii) two years from the Closing Date;

(b) prepare and file with the SEC such amendments and post-effective amendments to the Registration Statement and the Prospectus as may be necessary to keep the Registration Statement effective for the period specified in Section 4(a) and to comply with the provisions of the 1933 Act and the 1934 Act with respect to the distribution of all Registrable Securities;

(c) provide copies to and permit counsel to Purdue, the Series D Investors and the holders of the Series B Warrants to review each Registration Statement and all amendments thereto no fewer than three (3) days prior to their filing with the SEC and not file any document to which such counsel reasonably objects within three (3) days following receipt by such counsel of such Registration Statement and/or amendments thereto;

(d) furnish to the Holders and their legal counsel (i) promptly after the same is prepared and publicly distributed, filed with the SEC, or received by the Company (but not later than two (2) Business Days after the filing date, receipt date or sending date, as the case may be), an electronic copy of any Registration Statement and any amendment thereto, each preliminary prospectus and Prospectus and each amendment or supplement thereto, and each letter written by or on behalf of the Company to the SEC or the staff of the SEC, and each item of correspondence from the SEC or the staff of the SEC, in each case relating to such Registration Statement (other than any portion thereof which contains information for which the Company has sought confidential treatment), and (ii) such number of copies of a Prospectus, including a preliminary prospectus, and all amendments and supplements thereto and such other documents as each Holder may reasonably request in order to facilitate the disposition of the Registrable Securities owned by such Holder, which in any event, shall not exceed ten (10) Prospectuses;

(e) in the event the Company selects an underwriter for the offering, the Company shall enter into and perform its reasonable obligations under an underwriting agreement, in usual and customary form, including, without limitation, customary indemnification and contribution obligations, with the underwriter of such offering;

(f) if required by the underwriter, the Company shall furnish, on the effective date of the Registration Statement (i) an opinion, dated as of such date, from independent legal counsel representing the Company for purposes of such Registration Statement, in form, scope and substance as is customarily given in an underwritten public offering, addressed to the underwriter and (ii) a letter, dated such date, from the Company's independent certified public accountants in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriter and the Holders;

(g) use its reasonable best efforts to prevent the issuance of any stop order or other suspension of effectiveness and, if such order is issued, obtain the withdrawal of any such order at the earliest possible moment;

(h) prior to any public offering of Registrable Securities, use its reasonable best efforts to register or qualify or cooperate with the Holders and their counsel in connection with the registration or qualification of such Registrable Securities for offer and sale under the securities or blue sky laws of such jurisdictions reasonably requested by the Holders and do any and all other reasonable acts or things necessary or advisable to enable the distribution in such jurisdictions of the Registrable Securities covered by the Registration Statement;

(i) cause all Registrable Securities covered by a Registration Statement to be listed or traded on each securities exchange, interdealer quotation system or other market on which similar securities issued by the Company are then listed or traded;

(j) immediately notify the Holders, at any time when a Prospectus relating to the Registrable Securities is required to be delivered under the 1933 Act, upon discovery that, or upon the happening of any event as a result of which, the Prospectus included in such Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, and at the request of any such Holder, promptly prepare and furnish to such Holder a reasonable number of copies of a supplement to or an amendment of such Prospectus as may be necessary so that, as thereafter delivered to the purchasers of such Registrable Securities, such Prospectus shall not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing; and

(k) otherwise use its best efforts to comply with all applicable rules and regulations of the SEC under the 1933 Act and the 1934 Act and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder; and make available to its security holders, as soon as reasonably practicable, but not later than the Availability Date (as defined below), an earnings statement covering a period of at least twelve (12) months, beginning after the effective date of each Registration Statement, which earnings statement shall satisfy the provisions of Section 11(a) of the 1933 Act (for the purpose of this subsection 4(k), "**Availability Date**" means the 45th day following the end of the fourth fiscal quarter that includes the effective date of such Registration Statement, except that, if such fourth fiscal quarter is the last quarter of the Company's fiscal year, "**Availability Date**" means the 90th day after the end of such fourth fiscal quarter).

5 . Due Diligence Review; Information. Upon receipt of an appropriate confidentiality agreement, the Company shall make available, during normal business hours, for inspection and review by the Holders, advisors to and representatives of the Holders (who may or may not be affiliated with the Holders), and any underwriter participating in any disposition of Common Stock on behalf of the Holders pursuant to a Registration Statement or amendments or supplements thereto or any blue sky, FINRA or other filing, all financial and other records, all filings with the SEC, and all other corporate documents and properties of the Company as may be reasonably necessary for the purpose of such review, and cause the Company's officers, directors and employees, within a reasonable time period, to supply all such information reasonably requested by the Holders or any such representative, advisor or underwriter in connection with such Registration Statement (including, without limitation, in response to all questions and other inquiries reasonably made or submitted by any of them), prior to and from time to time after the filing and effectiveness of the Registration Statement for the sole purpose of enabling the Holders and such representatives, advisors and underwriters and their respective accountants and attorneys to conduct initial and ongoing due diligence with respect to the Company and the accuracy of such Registration Statement.

Notwithstanding the foregoing, the Company shall not disclose material nonpublic information to the Holders, or to advisors to or representatives of the Holders, unless prior to disclosure of such information the Company identifies such information as being material nonpublic information and provides the Holders, such advisors and representatives with the opportunity to accept or refuse to accept such material nonpublic information for review.

6. Obligations of the Holders.

(a) Each Holder agrees to furnish to the Company a completed Questionnaire in the form attached to this Agreement as Exhibit B (a "Selling Shareholder Questionnaire") not prior to 120 days after the Closing Date and not more than 150 days after the Closing Date. A Holder who fails to furnish a Selling Stockholder Questionnaire within 150 days after the Closing Date may have its Registrable Securities excluded from the Registration Statement, provided that the Company has provided such Holder with notice at least 20 days prior (but no more than 60 days prior) to the expiration of such 150 day period.

(b) Each Holder, by its acceptance of the Registrable Securities, agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of a Registration Statement hereunder, unless such Holder has notified the Company in writing of its election to exclude all of its Registrable Securities from such Registration Statement.

(c) In the event the Company, at the request of the Holders, determines to engage the services of an underwriter, each such Holder agrees to enter into and perform its obligations under an underwriting agreement, in usual and customary form, including, without limitation, customary indemnification and contribution obligations, with the managing underwriter of such offering and take such other actions as are reasonably required in order to expedite or facilitate the dispositions of the Registrable Securities.

(d) Each Holder agrees that, upon receipt of any notice from the Company of the happening of any event rendering a Registration Statement no longer effective, such Holder will immediately discontinue disposition of Registrable Securities pursuant to the Registration Statement covering such Registrable Securities, until the Holder's receipt of copies of the supplemented or amended Prospectus filed with the SEC and declared effective and, if so directed by the Company, the Holder shall deliver to the Company (at the expense of the Company) or destroy (and deliver to the Company a certificate of destruction) all copies in the Holder's possession of the Prospectus covering the Registrable Securities current at the time of receipt of such notice.

(e) No Holder may participate in any third party underwritten registration hereunder unless it (i) agrees to sell the Registrable Securities on the basis provided in any underwriting arrangements in usual and customary form entered into by the Company, (ii) completes and executes all questionnaires, powers of attorney, indemnities, underwriting agreements and other documents reasonably required under the terms of such underwriting arrangements, and (iii) agrees to pay its pro rata share of all underwriting discounts and commissions. Notwithstanding the foregoing, no Holder shall be required to make any representations to such underwriter, other than those with respect to itself and the Registrable Securities owned by it, including its right to sell the Registrable Securities, and any indemnification in favor of the underwriter by the Holders shall be several and not joint and limited in the case of any Holder, to the net proceeds received by such Holder from the sale of its Registrable Securities. The scope of any such indemnification in favor of an underwriter shall be limited to the same extent as the indemnity provided in Section 7(b) hereof.

7. Indemnification.

(a) Indemnification by the Company. The Company will indemnify and hold harmless each Holder and any controlling person (as defined in Section 15 of the 1933 Act) and their respective officers, directors, members, employees and agents, successors and assigns (the "Indemnified Persons"), against any losses, claims, damages or liabilities, joint or several, to which such Indemnified Person may become subject under the 1933 Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon: (i) any untrue statement or alleged untrue statement of any material fact contained in any Registration Statement, any preliminary prospectus or final prospectus contained therein, or any amendment or supplement thereof; (ii) any blue sky application or other document executed by the Company specifically for blue sky compliance or based upon written information furnished by the Company filed in any state or other jurisdiction in order to qualify any or all of the Registrable Securities under the securities laws thereof (any such application, document or information herein called a **"Blue Sky Application"**); (iii) the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; (iv) any violation by the Company, or its directors, officers, employees or agents of any rule or regulation promulgated under the 1933 Act applicable to the Company or its directors, officers, employees or agents and relating to action or inaction required of the Company or any of them in connection with such registration; or (v) any failure to register or qualify the Registrable Securities included in any such Registration Statement in any state where the Company or its agents has affirmatively undertaken or agreed in writing that the Company will undertake such registration or qualification on a Holder's behalf (the undertaking of any underwriter chosen by the Company being attributed to the Company) and will reimburse such Holder, and each such officer, director or member and each such controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable in any such case if and to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in conformity with information furnished in writing by such Holder or any such controlling person specifically for use in such Registration Statement or Prospectus.

(b) Indemnification by the Holders. In connection with any Registration Statement pursuant to the terms of this Agreement, each Holder will furnish to the Company in writing such information as the Company reasonably requests concerning such Holder or the proposed manner of such Holder's distribution for use in connection with any Registration Statement or Prospectus and agrees, severally but not jointly, to indemnify and hold harmless, to the fullest extent permitted by law, the Company, its Subsidiaries and its and their respective directors, officers, employees, shareholders and each person who controls the Company (within the meaning of the 1933 Act) against any losses, claims, damages, liabilities and expenses (including reasonable attorney fees) resulting from any untrue statement of a material fact or any omission of a material fact required to be stated in the Registration Statement or Prospectus or preliminary prospectus or amendment or supplement thereto or necessary to make the statements therein not misleading, to the extent, but only to the extent that such untrue statement or omission is contained in any information furnished in writing by such Holder to the Company specifically for inclusion in such Registration Statement or Prospectus or amendment or supplement thereto. In no event shall the liability of a Holder be greater in amount than the aggregate dollar amount of the proceeds (net of all expenses paid by such Holder and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue statement or omission) received by such Holder upon the sale of the Registrable Securities included in the Registration Statement giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. Any person entitled to indemnification hereunder shall (i) give prompt notice to the indemnifying party of any claim with respect to which it seeks indemnification and (ii) permit such indemnifying party to assume the defense of such claim with counsel reasonably satisfactory to the indemnified party; provided that any person entitled to indemnification hereunder shall have the right to employ separate counsel and to participate in the defense of such claim, but the fees and expenses of such counsel shall be at the expense of such person unless (a) the indemnifying party has agreed to pay such fees or expenses, or (b) the indemnifying party shall have failed to assume the defense of such claim and employ counsel reasonably satisfactory to such person or (c) in the reasonable judgment of any such person, based upon advice of its counsel, a conflict of interest exists between such person and the indemnifying party with respect to such claims (in which case, if the person notifies the indemnifying party in writing that such person elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of such claim on behalf of such person); and provided, further, that the failure of any indemnified party to give notice as provided herein shall not relieve the indemnifying party of its obligations hereunder, except to the extent that such failure to give notice shall materially adversely affect the indemnifying party in the defense of any such claim or litigation. It is understood that the indemnifying party shall not, in connection with any proceeding in the same jurisdiction, be liable for fees or expenses of more than one separate firm of attorneys at any time for all such indemnified parties. No indemnifying party will, except with the consent of the indemnified party, consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect of such claim or litigation.

(d) Contribution. If for any reason the indemnification provided for in the preceding paragraphs (a) and (b) is unavailable to an indemnified party or insufficient to hold it completely harmless, other than as expressly specified therein, then the indemnifying party shall contribute to the amount paid or payable by the indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnified party and the indemnifying party, as well as any other relevant equitable considerations. No person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the 1933 Act shall be entitled to contribution from any person not guilty of such fraudulent misrepresentation. In no event shall the contribution obligation of a Holder be greater in amount than the aggregate dollar amount of the proceeds (net of all expenses paid by such holder and the amount of any damages such Holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission) received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

8. Miscellaneous.

(a) Amendments and Waivers. This Agreement shall not be amended except by a writing signed by (i) the Company and (ii) the Requisite Holders (as defined in the Certificate of Designations). The Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company shall have obtained the written consent to such amendment, action or omission to act, of the Requisite Holders (as defined in the Certificate of Designations).

(b) Notices. All notices and other communications provided for or permitted hereunder shall be made (i) for Purdue, as set forth in the Series E Securities Purchase Agreement; (ii) for the Series D Investors, as set forth in the Series D Securities Purchase Agreement and (iii) for the holders of the Series B Warrants as stated therein, as applicable.

(c) Assignments and Transfers by Holders. The provisions of this Agreement shall be binding upon and inure to the benefit of the Holders and their respective successors and assigns. A Holder may transfer or assign, in whole or in part, to one or more persons and Associated Companies its rights hereunder in connection with the transfer of Registrable Securities by such Holder to such person, provided, that, such Holder complies with all applicable laws thereto and provides written notice of assignment to the Company promptly after such assignment is effected.

(d) Assignments and Transfers by the Company. This Agreement shall not be assigned by the Company without the prior written consent of each Holder, except that without the prior written consent of the Holders, but after notice duly given, the Company shall assign its rights and delegate its duties hereunder to any successor-in-interest corporation, and such successor-in-interest shall assume such rights and duties, in the event of a merger or consolidation of the Company with or into another corporation or the sale of all or substantially all of the Company's assets.

(e) Benefits of the Agreement. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective permitted successors and assigns of the Parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the Parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(f) Counterparts; Faxes. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed via facsimile, which shall be deemed an original.

(g) Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

(h) Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof but shall be interpreted as if it were written so as to be enforceable to the maximum extent permitted by applicable law, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the Parties hereby waive any provision of law which renders any provisions hereof prohibited or unenforceable in any respect.

(i) Further Assurances. The Parties shall execute and deliver all such further instruments and documents and take all such other actions as may reasonably be required to carry out the transactions contemplated hereby and to evidence the fulfillment of the agreements herein contained.

(j) Entire Agreement. This Agreement is intended by the Parties as a final expression of their agreement and intended to be a complete and exclusive statement of the agreement and understanding of the Parties hereto in respect of the subject matter contained herein. This Agreement supersedes all prior agreements and understandings between the Parties with respect to such subject matter.

(k) Governing Law; Consent to Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof. Each of the Parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each Party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the Parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each Party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. **THE COMPANY AND EACH OF THE HOLDERS HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING RELATING TO OR ARISING OUT OF THIS AGREEMENT AND THE TRANSACTIONS CONTEMPLATED HEREBY.**

[Signature Pages Follow]

Company Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the Company has executed this Agreement or caused its duly authorized officer to execute this Agreement as of the date first above written.

NOVELOS THERAPEUTICS, INC.

By: /s/ Harry S. Palmin

Name: Harry S. Palmin
Title: President and CEO

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Purdue Pharma, L.P.
Name of entity

By: Purdue Pharma, Inc. ,
its general partner

By: /s/ Edward B. Mahony

Name: Edward B. Mahony
Title: Chief Financial Officer

New York
Jurisdiction of organization of entity

Address:

One Stamford Forum
Stamford, CT 06901

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Xmark Opportunity Fund, Ltd.
Name of entity

By: Xmark Opportunity Manager, LLC,
its Investment Manager

By: Xmark Opportunity Partners, LLC,
its Sole Member

By: Xmark Capital Partners, LLC,
its Managing Member

By: /s/ Mitchell D. Kaye

Name: Mitchell D. Kaye
Title: Chief Executive Officer

Cayman Islands
Jurisdiction of organization of entity

Address:

90 Grove Street
Ridgefield, CT 06877

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Xmark Opportunity Fund, L.P.
Name of entity

By: Xmark Opportunity GP, LLC
its General Partner

By: Xmark Opportunity Partners, LLC,
its Sole Member

By: Xmark Capital Partners, LLC,
its Managing Member

By: /s/ Mitchell D. Kaye

Name: Mitchell D. Kaye
Title: Chief Executive Officer

Delaware
Jurisdiction of organization of entity

Address:

90 Grove Street
Ridgefield, CT 06877

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Xmark JV Investment Partners, LLC
Name of entity

By: Xmark Opportunity Partners, LLC
its Investment Manager

By: Xmark Capital Partners, LLC,
its Managing Member

By: /s/ Mitchell D. Kaye
Name: Mitchell D. Kaye
Title: Chief Executive Officer

Delaware
Jurisdiction of organization of entity

Address:

90 Grove Street
Ridgefield, CT 06877

[This page has been intentionally left blank.]

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Caduceus Capital Master Fund Limited
Name of entity

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly
Title: Managing Partner, OrbiMed Advisors LLC

Print jurisdiction of organization of entity: Bermuda

Address:
c/o OrbiMed Advisors LLC
767 Third Avenue, 30th Floor
New York, NY 10017

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement of the date first above written.

Caduceus Capital II, L.P.
Name of entity

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, OrbiMed Advisors LLC

Print jurisdiction of organization of entity: Delaware

Address:
c/o OrbiMed Advisors LLC
767 Third Avenue, 30th Floor
New York, NY 10017

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Summer Street Life Sciences Hedge Fund Investors LLC
Name of entity

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, OrbiMed Advisors LLC

Print jurisdiction of organization of entity: Delaware

Address:
c/o OrbiMed Advisors LLC
767 Third Avenue, 30th Floor
New York, NY 10017

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written

UBS Eucalyptus Fund, L.L.C.
Name of entity

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, OrbiMed Advisors LLC

Print jurisdiction of organization of entity: Delaware

Address:
c/o OrbiMed Advisors LLC
767 Third Avenue, 30th Floor
New York, NY 10017

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

PW Eucalyptus Fund, Ltd.
Name of entity

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, OrbiMed Advisors LLC

Print jurisdiction of organization of entity: Cayman Islands

Address:
c/o OrbiMed Advisors LLC
767 Third Avenue, 30th Floor
New York, NY 10017

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Knoll Special Opportunities Fund II Master Fund Ltd. (formerly Knoll Capital Fund II Master Fund Ltd.)
Name of entity

By: /s/ Fred Knoll
Name: Fred Knoll
Title: KOM Capital Management
Investment Manager

Print jurisdiction of organization of entity:

Address:
c/o KOM Capital Management
666 Fifth Avenue, Suite 3702,
New York, NY 10103

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Europa International, Inc.
Name of entity

By: /s/ Fred Knoll
Name: Fred Knoll
Title: Knoll Capital Management
Investment Manager for
Europa International, Inc.

Print jurisdiction of organization of entity

Address:
c/o Knoll Capital Management
666 Fifth Avenue, Suite 3702,
New York, NY 10103

Holder Signature Page to Registration Rights Agreement

IN WITNESS WHEREOF, the undersigned has executed this Registration Rights Agreement or caused its duly authorized officers to execute this Registration Rights Agreement as of the date first above written.

Hunt BioVenures, L.P.
Name of entity

By : HBV GP, L.L.C, its General Partner

By: /s/ J. Fulton Murray, III
Name: J. Fulton Murray, III, Manager

Jurisdiction of organization of entity: Delaware

Address:
Hunt Investments
1900 N. Akard
Dallas, TX 75201
Attn: Michael T. Bierman, J. Fulton Murray, III and Benjamin D. Nelson

Plan of Distribution

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

- an exchange distribution in accordance with the rules of the applicable exchange;

- privately negotiated transactions;

- short sales;

- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

- a combination of any such methods of sale; and

- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) two years from the Closing Date.

Exhibit B

Selling Stockholder Questionnaire

To: Novelos Therapeutics, Inc.
c/o Foley Hoag LLP
155 Seaport Boulevard
Boston, MA 02210
Attention: Matthew Eckert, Esq.
Facsimile: (617) 832-1000

Reference is made to the Registration Rights Agreement (the "Agreement"), made between Novelos Therapeutics, Inc., a Delaware corporation (the "Company"), and the Holders noted therein.

Pursuant to Section 6(a) of the Agreement, the undersigned hereby furnishes to the Company the following information for use by the Company in connection with the preparation of the Registration Statement.

(1) Name and Contact Information:

Full legal name of record holder: _____

Address of record holder: _____

_____

Social Security Number or Taxpayer identification number of record holder: _____

Identity of beneficial owner (if different than record holder): _____

Name of contact person: _____

Telephone number of contact person: _____

Fax number of contact person: _____

E-mail address of contact person: _____

(2) Beneficial Ownership of Registrable Securities:

(a) Number of Registrable Securities owned by Selling Stockholder:

(b) Number of Registrable Securities requested to be registered:

(3) Beneficial Ownership of Other Securities of the Company Owned by the Selling Stockholder:

Except as set forth below in this Item (3), the undersigned is not the beneficial or registered owner of any securities of the Company other than the Registrable Securities listed above in Item (2)(a).

Type and amount of other securities beneficially owned by the Selling Stockholder:

(4) Relationships with the Company:

Except as set forth below, neither the undersigned nor any of its affiliates, officers, directors or principal equity holders (5% or more) has held any position or office or has had any other material relationship with the Company (or its predecessors or affiliates) during the past three years.

State any exceptions here:

(5) Plan of Distribution:

Except as set forth below, the undersigned intends to distribute pursuant to the Registration Statement the Registrable Securities listed above in Item (2) in accordance with the "Plan of Distribution" section set forth therein:

State any exceptions here:

(6) Selling Stockholder Affiliations:

(a) Is the Selling Stockholder a registered broker-dealer?

(b) Is the Selling Stockholder an affiliate of a registered broker-dealer(s)? (For purposes of this response, an "affiliate" of, or person "affiliated" with, a specified person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.)

(c) If the answer to Item (6)(b) is yes, identify the registered broker-dealer(s) and describe the nature of the affiliation(s):

(d) If the answer to Item (6)(b) is yes, did the Selling Stockholder acquire the Registrable Securities in the ordinary course of business (if not, please explain)?

(e) If the answer to Item (6)(b) is yes, did the Selling Stockholder, at the time of purchase of the Registrable Securities, have any agreements, plans or understandings, directly or indirectly, with any person to distribute the Registrable Securities (if yes, please explain)?

(7) Voting or Investment Control over the Registrable Securities:

If the Selling Stockholder is not a natural person, please identify the natural person or persons who have voting or investment control over the Registrable Securities listed in Item (2) above:

Pursuant to Section 3(c) of the Agreement, the undersigned acknowledges that the Company may, by notice to the Holder at its last known address, suspend or withdraw the Registration Statement and require that the undersigned immediately cease sales of Registrable Securities pursuant to the Registration Statement under certain circumstances described in the Agreement. At any time that such notice has been given, the undersigned may not sell Registrable Securities pursuant to the Registration Statement.

The undersigned hereby agrees to sell such shares only pursuant to and in the manner contemplated by the Registration Statement, including the Plan of Distribution section contained therein (in substantially the form attached hereto as Exhibit A), or pursuant to an exemption from the registration requirements under the Securities Act. The undersigned hereby further acknowledges that pursuant to Section 7(b) of the Agreement, the undersigned shall indemnify the Company and each of its directors and officers against, and hold the Company and each of its directors and officers harmless from, any losses, claims, damages, expenses or liabilities (including reasonable attorneys fees) to which the Company or its directors and officers may become subject by reason of any statement or omission in the Registration Statement made in reliance upon, or in conformity with, a written statement by the undersigned, including the information furnished in this Questionnaire by the undersigned.

By signing below, the undersigned consents to the disclosure of the information contained herein in its answers to Items (1) through (7) above and the inclusion of such information in the Registration Statement, any amendments thereto and the related prospectus. The undersigned understands that such information will be relied upon by the Company in connection with the preparation or amendment of the Registration Statement and the related prospectus.

The undersigned has reviewed the answers to the above questions and affirms that the same are true, complete and accurate. THE UNDERSIGNED AGREES TO NOTIFY THE COMPANY IMMEDIATELY OF ANY MATERIAL CHANGES IN THE FOREGOING INFORMATION.

Dated:_____, 2009

_____

Signature of Record Holder
(Please sign your name in exactly the same manner as the certificate(s) for the shares being registered)

NOVELOS THERAPEUTICS, INC.

SERIES D PREFERRED STOCK
CONSENT AND AGREEMENT TO EXCHANGE

This CONSENT AND AGREEMENT TO EXCHANGE (the "Agreement") dated as of February 10, 2009, is entered into by and among Novelos Therapeutics, Inc., a Delaware corporation (the "Company") and the entities listed on the signature pages hereto (collectively, the "Series D Investors") (the Company and Series D Investors are sometimes referred to herein individually as a "Party" and collectively as the "Parties").

WHEREAS, the Series D Investors hold an aggregate of 413.5 shares of the Company's Series D Convertible Preferred Stock, $0.00001 par value per share (the "Series D Preferred Stock");

WHEREAS, the Certificate of Designations, Preferences and Rights of Series D Convertible Preferred Stock of Novelos Therapeutics, Inc. (the "Series D Certificate of Designations") contains certain prohibitions on amendments to the Company's Certificate of Incorporation, the creation or issuance of any equity security unless the per share price of such securities exceeds $0.65 in cash and said securities rank junior to the Series D Preferred Stock, and the sale, lease, conveyance or licensing of any material intellectual property by the Company without the prior written consent of the Series D Investors;

WHEREAS, effective immediately following the execution of this Agreement, the Company is executing and delivering a securities purchase agreement (the "Purdue Securities Purchase Agreement") in the form attached hereto as Exhibit A, pursuant to which the Company is issuing and selling 200 shares of a newly created series of the Company's preferred stock, designated Series E Convertible Preferred Stock, par value $0.00001 per share (the "Series E Preferred Stock") and a warrant to acquire up to 9,230,769 shares of Common Stock (as defined below) with an exercise price of $0.65 per share (the "Series E Warrant") to Purdue Pharma L.P., a Delaware limited partnership ("Purdue"), which Series E Preferred Stock shall have the relative rights, privileges and preferences set forth in the Certificate of Designations, Rights and Preferences of the Series E Convertible Preferred Stock of Novelos Therapeutics, Inc., in the form attached hereto as Exhibit B (the "Series E Certificate of Designations") (collectively, the "Purdue Financing") and this Agreement is a condition to closing as stated in the Purdue Securities Purchase Agreement;

WHEREAS, simultaneously with the completion of the Purdue Financing, the Company is entering into a Collaboration Agreement with Mundipharma International Corporation Limited (the "Mundi Collaboration Agreement") in the form attached hereto as Exhibit C (collectively with the Purdue Financing, the "Transactions");

WHEREAS, the Company and the Series D Investors desire to exchange each outstanding share (and any fraction thereof) of Series D Preferred Stock, together with all accrued but unpaid dividends thereon, for 1.07725 shares of Series E Preferred Stock (or a pro rata portion thereof for any fraction of a share of Series D Preferred Stock), as set forth on Schedule A hereto effective as of the consummation of the Transactions (the "Series D Exchange");

WHEREAS, simultaneously with the execution of this Agreement, the holders of the Company's Series C Convertible Preferred Stock, $0.00001 par value per share (the "Series C Preferred Stock") are executing a Consent and Agreement of Holders of Series C Preferred Stock in the form attached hereto as Exhibit D (the "Series C Consent") pursuant to which such holders will consent to the Transactions and the consummation of the Series D Exchange;

WHEREAS, the Series D Preferred Stock was senior with respect to the payment of a liquidation preference to all shares of the Company's capital stock, including, without limitation the Series C Preferred Stock and accordingly, pursuant to the Series E Certificate of Designations, the Series E Preferred Stock shall be entitled to seniority with respect to the payment of any liquidation preference in relation to the Series C Preferred Stock;

WHEREAS, in connection with the transactions contemplated by the Series D Exchange, in order to make certain conforming changes therein the Company desires to amend the (i) Registration Rights Agreement, dated May 2, 2007, as amended by that certain Amendment to Registration Rights Agreement, dated April 11, 2008, by entering into that certain Amendment No. 2 to Registration Rights Agreement, in the form attached as Exhibit E hereto (the "2007 Reg Rights Amendment") and (ii) desires to terminate the Registration Rights Agreement, dated April 11, 2008, and enter into a new Registration Rights Agreement, in the form attached as Exhibit F hereto (the "2009 Reg Rights Agreement"); and

WHEREAS, the Series D Investors hold 7,500,000 warrants to purchase the Company's common stock issued on May 2, 2007, amended on April 11, 2008 (the "Series B Warrants") and hold 4,365,381 warrants to purchase the Company's common stock issued on April 11, 2008 (the "Series D Warrants"); and in order to conform certain of the terms of the Series B Warrants and the Series D Warrants to the terms of the warrants to be issued to Purdue in connection with the Purdue Securities Purchase Agreement the Series D Investors and the Company desire to amend (i) the Series B Warrants by entering into a Warrant Amendment Agreement, in the form attached as Exhibit G hereto (the "Series B Warrant Amendment") and (ii) the Series D Warrants by entering into a Warrant Amendment Agreement, in the form attached as Exhibit H hereto (the "Series D Warrant Amendment") (collectively, the "Warrant Amendments");

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Parties hereto agree as follows:

1. Consent.

(a) Each of the Series D Investors hereby consents (i) to the filing of the Series E Certificate of Designations and (ii) to the Transactions.

(b) Each of the Series D Investors hereby consents to the filing, with the Secretary of State of the State of Delaware, of a Certificate of Elimination pursuant to which all matters set forth in the Certificate of Designations, Preferences and Rights of Series B Convertible Preferred Stock of Novelos Therapeutics, Inc. with respect to the Company's Series B Convertible Preferred Stock, $0.00001 (the "Series B Preferred Stock") will be eliminated from the Company's Certificate of Incorporation and the shares that were designated as Series B Preferred Stock will be returned to the status of authorized but unissued shares of preferred stock of the Company, without designation as to series, in the form attached hereto as Exhibit I (the "Series B Certificate of Elimination").

(c) Each of the Series D Investors hereby consents to the filing with the Secretary of State of the State of Delaware, following the issuance of the Series E Preferred Stock pursuant to this Agreement, of a Certificate of Elimination, pursuant to which all matters set forth in the Series D Certificate of Designations with respect to the Series D Preferred Stock will be eliminated from the Company's Certificate of Incorporation and the shares that were designated as Series D Preferred Stock will be returned to the status of authorized but unissued shares of preferred stock of the Company, without designation as to series, in the form attached hereto as Exhibit J (the "Series D Certificate of Elimination").

2. Exchange.

(a) Subject to the terms and conditions set forth herein, each of the Series D Investors hereby, severally and not jointly, agrees to exchange all shares of Series D Preferred Stock owned by such Series D Investor, and all rights, preferences and privileges associated therewith (including but not limited to any accrued but unpaid dividends thereon) for the number of shares of Series E Preferred Stock set forth on Schedule A hereto as of the Effective Time. The Series D Exchange shall be automatically effective, without any further action on the part of any Series D Investor, immediately upon the satisfaction (or waiver) of the conditions set forth in Section 7 hereof (the "Effective Time"). Promptly following the Effective Time, the Company will provide written notice to each Series D Investor confirming that the Effective Time has occurred.

(b) No later than three business days after the Effective Time, each Series D Investor shall surrender to the Company certificates that formerly represented all of the issued and outstanding shares of Series D Preferred Stock held by such Series D Investor (or provide to the Company such evidence as is reasonably satisfactory to the Company that such certificate representing shares of Series D Preferred Stock is lost or destroyed) and upon receipt thereof, the Company shall within three business days issue new stock certificates for shares of Series E Preferred Stock as set forth in Schedule A hereto and deliver such stock certificates for shares of Series E Preferred Stock to the applicable Series D Investors at the address set forth on the signature page hereto.

3. Waiver of Liquidated Damages. Each of the Series D Investors is a party to a Registration Rights Agreement dated April 11, 2008 (the "2008 Registration Agreement") which provides for registration rights with respect to the shares of Common Stock issuable (i) upon the conversion of Series D Preferred Stock (excluding 12,000,000 shares of Common Stock issuable upon conversion of the Preferred Stock which are registered pursuant to the Prior Registration Statement as defined in the 2008 Registration Agreement). Pursuant to Section 8(a) of the 2008 Registration Agreement, each of the Series D Investors hereby waives, effective as of the Effective Time, any and all liquidated damages arising under Section 3 of the 2008 Registration Agreement during the period from October 1, 2008 through the Effective Time as a result of the Company's failure to file the registration statement by the Filing Deadline (as defined in the 2008 Registration Agreement).

4. Representations of the Company. The Company represents and warrants to and agrees with each Series D Investor that:

(a) After the Series D Exchange, the holding period of the Series E Preferred Stock and the Company's common stock, $0.00001 par value per share ("Common Stock") issuable upon conversion of the Series E Preferred Stock (the "Conversion Shares") for purposes of Rule 144 under the Securities Act of 1933, as amended (the "1933 Act") shall have commenced on the same date as the holding period of the Series D Preferred Stock. In addition, no holder of the Series B Warrants or the Series D Warrants will be required to re-start a holding period for purposes of Rule 144 under the 1933 Act as a result of the Warrant Amendments and the other transactions contemplated hereby.

(b) The registration statement filed with the Securities Exchange Commission (the "SEC") under Registration No. 333-143263, as amended (the "Registration Statement"), will be supplemented by the Company on or prior to the fourth business day following the Series D Exchange, to reflect the transactions described in this Agreement (the "Prospectus Supplement"), the issuance of the Series E Preferred Stock and all other matters so that upon the filing of such Prospectus Supplement with the SEC, the Registration Statement will be current and effective with regard to the public resale of the securities covered by the Registration Statement. A copy of the Prospectus Supplement shall be provided to each of the Lead Series E Preferred Investors (as defined in the Series E Certificate of Designations) at least two business days prior to its filing with the SEC.

(c) Each of this Agreement, the Series C Consent, the 2007 Reg Rights Amendment, the 2009 Reg Rights Agreement and the Warrant Amendments (collectively, the "Transaction Documents"), and the Series B Certificate of Elimination and the Series D Certificate of Elimination has been duly authorized, executed and delivered by the Company and is a valid and binding document enforceable against the Company in accordance with its terms, subject to bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium and similar laws of general applicability relating to or affecting creditors' rights generally, principles of equity and principles of public policy. The Company has full corporate power and authority necessary to enter into and deliver each of the Transaction Documents, the Series B Certificate of Elimination and the Series D Certificate of Elimination and to perform its obligations hereunder and thereunder.

(d) No consent, approval, authorization or order of any court or governmental authority having jurisdiction over the Company nor the Company's shareholders is required for the execution, delivery and performance by the Company of the Transaction Documents, the Purdue Securities Purchase Agreement, the Mundi Collaboration Agreement, the Warrant Amendments and the filing of the Series E Certificate of Designations, including, without limitation, the issuance of the Series E Preferred Stock or the issuance of the Conversion Shares, collectively referred to as the "Securities".

(e) Assuming the representations and warranties of the Series D Investors in Section 4 are true and correct, neither the issuance of the Securities nor the performance of the Company's obligations under the Transaction Documents, the Purdue Securities Purchase Agreement, the Mundi Collaboration Agreement, the Warrant Amendments or the Series E Certificate of Designations by the Company will:

(i) violate, conflict with, result in a breach of, or constitute a default of a material nature under (A) the certificate of incorporation or bylaws of the Company as in effect on the date hereof, (B) any decree, judgment, order, law, treaty, rule or regulation applicable to the Company or any of the Company's properties or assets of any court or governmental authority having jurisdiction over the Company or over the properties or assets of the Company, or (C) the terms of any bond, debenture, note or any other evidence of indebtedness for borrowed money, or any material agreement, stock option or other similar plan, indenture, lease, mortgage, deed of trust or other instrument to which the Company is a party, or by which it is bound, or to which any of the properties or assets of the Company is subject;

(ii) result in the creation or imposition of any lien, charge or encumbrance upon the Securities or any of the properties or assets of the Company; or

(iii) result in the activation of any anti-dilution rights or a reset or repricing of any debt or security instrument of any other creditor or equity holder of the Company, nor result in the acceleration of the due date of any obligation of the Company, except for the issuance of additional warrants to purchase approximately 1,112,400 shares of Common Stock at approximately $1.82 to certain investors and a reduction in the exercise price of 11,267,480 warrants to purchase shares of Common Stock from $2.00 to approximately $1.82.

(f) Upon issuance, the Series E Preferred Stock or the Conversion Shares:

(i) are, or will be, free and clear of any security interests, liens, claims or other encumbrances, subject to restrictions upon transfer under the1933 Act and any applicable state securities laws;

(ii) have been, or will be, duly and validly authorized and on the date of issuance of the Conversion Shares will be duly and validly issued, fully paid and nonassessable;

(iii) will not have been issued or sold in violation of any preemptive, right of first refusal or other similar rights of the holders of any securities of the Company; and

(iv) will not result in a violation of Section 5 under the 1933 Act.

5 . Representations of the Series D Investors. Each Series D Investor hereby, severally and not jointly, represents and warrants to and agrees with the Company only as to each Series D Investor that:

(a) The Series D Investor is, and will be at the time of the issuance of the Conversion Shares, an "accredited investor", as such term is defined in Regulation D promulgated by the SEC under the 1933 Act, is experienced in investments and business matters, has made investments of a speculative nature and has purchased securities of United States publicly-owned companies in private placements in the past and, with its representatives, has such knowledge and experience in financial, tax and other business matters as to enable the Series D Investor to utilize the information made available by the Company to evaluate the merits and risks of and to make an informed investment decision with respect to the proposed transaction, which represents a speculative investment.

(b) The Series D Investor owns the Series D Preferred Stock set forth on Schedule A free and clear of any liens and encumbrances of third parties.

(c) The Series D Investor understands and agrees that the shares of Series E Preferred Stock have not been registered under the 1933 Act or any applicable state securities laws, by reason of their issuance in a transaction that does not require registration under the 1933 Act (based in part on the accuracy of the representations and warranties of Series D Investors contained herein), and that such Securities must be held indefinitely unless a subsequent disposition is registered under the 1933 Act or any applicable state securities laws or is exempt from such registration.

(d) The shares of Series E Preferred Stock and any Conversion Shares issuable in respect thereof shall bear the following or similar legend:

"THE SECURITIES REPRESENTED HEREBY MAY NOT BE TRANSFERRED UNLESS (I) SUCH SECURITIES HAVE BEEN REGISTERED FOR SALE PURSUANT TO THE SECURITIES ACT OF 1933, AS AMENDED, OR (II) THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL SATISFACTORY TO IT THAT SUCH TRANSFER MAY LAWFULLY BE MADE WITHOUT REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED OR QUALIFICATION UNDER APPLICABLE STATE SECURITIES LAWS."

6. Securities Purchase Agreements

(a) Each of the Parties hereby acknowledges and agrees that for purposes of the Securities Purchase Agreement, dated March 26, 2008, among the Company and the investors set forth on Schedule I thereto (the "2008 Purchase Agreement"), that following the consummation of the Series D Exchange, (i) the term "Preferred Stock" as defined therein shall include shares of Series E Preferred Stock and (ii) the Series D Exchange shall constitute a reclassification or other recapitalization as contemplated in the definition of "Requisite Holders" as contained therein.

(b) Each of the Parties hereby acknowledges and agrees that for purposes of the Securities Purchase Agreement, dated April 12, 2007, as amended, among the Company and the investors set forth on Schedule I thereto (the "2007 Purchase Agreement"), that following the consummation of the Series D Exchange, (i) the term "Preferred Stock" as defined therein shall include shares of Series E Preferred Stock and (ii) the Series D Exchange shall constitute a reclassification or other recapitalization as contemplated in the definition of "Requisite Holders" as contained therein.

7 . Conditions to Effectiveness of Series D Exchange. The Effective Time shall occur only upon the satisfaction (or waiver by the holders of a majority of the then outstanding shares of Series D Preferred Stock, but only if such majority shall include Xmark LP, Xmark Ltd., Xmark LLC, Caduceus Master, Caduceus Capital, Summer Street, UBS Eucalyptus and PW Eucalyptus (such majority collectively, the "Requisite Holders")) of each of the following conditions:

(i) This Agreement shall have been duly executed and delivered by each of the holders of outstanding shares of Series D Preferred Stock;

(ii) The Company and the Requisite Holders shall have received evidence of the acceptance of the filing of the Series E Certificate of Designations from the Secretary of State of the State of Delaware;

(iii) The 2007 Reg Rights Amendment shall have been duly executed by and delivered to the Company and the Requisite Holders (as defined therein);

(iv) The 2009 Reg Rights Agreement shall have been duly executed by and delivered to the Company and the Holders (as defined therein);

(v) The Series C Consent shall have been duly executed and delivered by the Company to the Requisite Holders;

(vi) The Purdue Securities Purchase Agreement and the Mundi Collaboration Agreement shall have been duly executed and delivered to Novelos; and

(vii) The Series B Warrant Amendment and the Series D Warrant Amendment shall have been duly executed by and delivered to the Company and the Requisite Holders (as defined in the Series B Warrant and Series D Warrant, respectively).

8. Expiration. This Agreement shall be null and void and of no further force and effect if the Effective Time does not occur on or before 5:00 p.m., New York time, on February 13, 2009.

9. Further Assurances. Each Party hereto shall do and perform or cause to be done and performed all such further acts and shall execute and deliver all such other agreements, certificates, instruments and documents as any other Party hereto reasonably may request in order to carry out the intent and accomplish the purposes of this Agreement, the other Transaction Documents, the Series D Exchange and the consummation of the transactions contemplated hereby and thereby.

10. Independent Nature of Series D Investors Obligations and Rights. The obligations of each Series D Investor under this Agreement and the other Transaction Documents, to the extent a party thereto, are several and not joint with the obligations of any other Series D Investor, and no Series D Investor shall be responsible in any way for the performance of the obligations of any other Series D Investor under any Transaction Document. The decision of each Series D Investor to consummate the Series D Exchange pursuant to the Transaction Documents has been made by such Series D Investor independently of any other Series D Investor and independently of any information, materials, statements or opinions as to the business, affairs, operations, assets, properties, liabilities, results of operations, condition (financial or otherwise) or prospects of the Company or any of its subsidiaries which may have been made or given by any other Series D Investor by any agent or employee of any other Series D Investor, and no Series D Investor and any of its agents or employees shall have any liability to any other Series D Investor (or any other individual or entity) relating to or arising from any such information, materials, statement or opinions. Nothing contained herein or in any Transaction Document, and no action taken by any Series D Investor pursuant thereto, shall be deemed to constitute the Series D Investors as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Series D Investors are in any way acting in concert or as a group with respect to such obligations or the transactions contemplated by the Transaction Documents. Each Series D Investor acknowledges that no other Series D Investor has acted as agent for such Series D Investor in connection with it entering into this Agreement and that no Series D Investor will be acting as agent of such Series D Investor in connection with monitoring its investment in the Securities or enforcing its rights under the Transaction Documents. Each Series D Investor shall be entitled to independently protect and enforce its rights, including without limitation the rights arising out of this Agreement or out of the other Transaction Documents, and it shall not be necessary for any other Series D Investor to be joined as an additional party in any proceeding for such purpose. The Company acknowledges that each of the Series D Investors has been provided with the same Transaction Documents for the purpose of closing a transaction with multiple Series D Investors and not because it was required or requested to do so by any Series D Investor. The Company's obligations to each Series D Investor under this Agreement are identical to its obligations to each other Series D Investor other than such differences resulting solely from the number of shares of Series D Preferred Stock exchanged for Series E Preferred Stock by such Series D Investor, but regardless of whether such obligations are memorialized herein or in another agreement between the Company and a Series D Investor.

11. Counsel. Lowenstein Sandler PC has acted solely as legal counsel to each of Xmark LP, Xmark Ltd., Xmark LLC, in connection with this Agreement and the other Transaction Documents. Each of the Company and the other Series D Investors has consulted with its own counsel to the extent they deemed necessary, and has entered into this Agreement, the Transaction Documents and any other documents contemplated hereunder to which it is a party after being satisfied with such advice.

12. Choice of Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to conflicts of laws principles that would result in the application of the substantive laws of another jurisdiction. Any action brought by either Party against the other concerning the transactions contemplated by this Agreement shall be brought only in the civil or state courts of New York or in the federal courts located in New York County. THE PARTIES AND THE INDIVIDUALS EXECUTING THIS AGREEMENT AND OTHER AGREEMENTS REFERRED TO HEREIN OR DELIVERED IN CONNECTION HEREWITH ON BEHALF OF THE COMPANY AGREE TO SUBMIT TO THE JURISDICTION OF SUCH COURTS AND WAIVE TRIAL BY JURY. The prevailing Party shall be entitled to recover from the other Party its reasonable attorney's fees and costs. In the event that any provision of this Agreement or any other agreement delivered in connection herewith is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any such provision which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision of any agreement.

1 3 . Notices. Unless otherwise provided, any notice required or permitted under this Agreement shall be given in writing and shall be deemed effectively given as hereinafter described (i) if given by personal delivery, then such notice shall be deemed given upon such delivery, (ii) if given by telex or telecopier, then such notice shall be deemed given upon receipt of confirmation of complete transmittal, (iii) if given by mail, then such notice shall be deemed given upon the earlier of (A) receipt of such notice by the recipient or (B) three (3) business days after such notice is deposited in first class mail, postage prepaid, and (iv) if given by a nationally recognized overnight air courier, then such notice shall be deemed given one (1) business day after delivery to such carrier. All notices shall be addressed to the Party to be notified at the address as follows, or at such other address as such Party may designate by ten (10) days' advance written notice to the other Party:

If to the Company:

Novelos Therapeutics, Inc.
One Gateway Center, Suite 504
Newton, MA 02458
Attention: Chief Executive Officer
Fax: (617) 964-6331

With a copy to:

Foley Hoag LLP
Seaport World Trade Center West
155 Seaport Boulevard
Boston, MA 02210
Attn: Paul Bork
Fax: (617) 832-7000

If to any of the Series D Investors:

To the addresses set forth on the signature page hereto.

With a copy to:

Lowenstein Sandler PC
1251 Avenue of the Americas
New York, NY 10020
Attn: Steven E. Siesser, Esq.
Fax: (973) 597-2507

14. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which taken together shall constitute one and the same Agreement. Counterpart signature pages to this Agreement transmitted by facsimile transmission, by electronic mail in "portable document format" (".pdf") form, or by any other electronic means intended to preserve the original graphic and pictorial appearance of a document, will have the same effect as physical delivery of the paper document bearing an original signature.

15. Amendments and Waivers. This Agreement shall not be amended and the observance of any term of this Agreement shall not be waived (either generally or in a particular instance and either retroactively or prospectively) without the prior written consent of the Company and the Requisite Holders. Any amendment or waiver effected in accordance with this Section 15 shall be binding upon each Series D Investor and the Company.

IN WITNESS WHEREOF the undersigned have executed this Consent and Agreement to Exchange as of the date first above written.

NOVELOS THERAPEUTICS, INC.

By: /s/ Harry S. Palmin
Name: Harry S. Palmin
Title: President and CEO

SERIES D INVESTORS:

Xmark Opportunity Fund, Ltd.
Xmark Opportunity Fund, L.P.
Xmark JV Investment Partners, LLC

By: /s/ Mitchell D. Kaye
Name: Mitchell D. Kaye
Title: Authorized Signatory
Address: 90 Grove Street
Ridgefield, CT 06877
Attn: Mitchell D. Kaye

Knoll Special Opportunities Fund II Master Fund Ltd. (1)
Europa International, Inc.

By: /s/ Fred Knoll
Name: Fred Knoll
Title: Portfolio Manager
Address: c/o Knoll Capital Management
666 Fifth Avenue, Suite 3702,
New York, NY 10103

Caduceus Capital Master Fund Limited
Caduceus Capital II, L.P.
UBS Eucalyptus Fund, L.L.C.
PW Eucalyptus Fund, Ltd.
Summer Street Life Sciences Hedge Fund Investors LLC

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, Orbimed Advisors
Address: c/o OrbiMed Advisors LLC
767 Third Avenue, 30th Floor
New York, NY 10017

Hunt-BioVentures, L.P.
By : HBV GP, L.L.C, its General Partner

By: /s/ J. Fulton Murray, III
Name: J. Fulton Murray, III
Title: Manager
Address: Hunt Investments
1900 N. Akard
Dallas, TX 75201
III and Benjamin D. Nelson
Attn: Michael T. Bierman, J. Fulton Murray,

(1) Formerly Knoll Capital Fund II Master Fund Ltd.

Exhibit A

Form of Securities Purchase Agreement between the Company and Purdue Pharma, L.P.
[See Exhibit 10.1 to this filing]

Exhibit B

Form of Certificate of Designations, Rights and Preferences of Series E Convertible Preferred Stock of Novelos Therapeutics, Inc.

[See Exhibit 4.1 to this filing]

Exhibit C

Form of Collaboration Agreement between the Company and Mundipharma International Corporation Limited

[To be filed]

Exhibit D

Form of Consent and Agreement of Holders of Series C Preferred Stock

NOVELOS THERAPEUTICS, INC.

CONSENT AND AGREEMENT OF HOLDERS OF SERIES C PREFERRED STOCK

This Consent and Agreement (the "Agreement"), dated as of February 10, 2009, is entered into by and among Novelos Therapeutics, Inc., a Delaware corporation (the "Company"), and each of the signatories hereto (collectively, the "Series C Investors") (the Company and Series C Investors are sometimes referred to herein individually as "Party" and collectively as the "Parties").

WHEREAS, each of the Series C Investors is the holder of shares of the Company's Series C 8% Cumulative Convertible Preferred Stock, $.00001 par value per share (the "Series C Preferred Stock");

WHEREAS, the Series C Preferred Stock's Certificate of Designations ("Series C Certificate of Designations") provides that it is senior with respect to the payment of dividends and liquidation preference to all shares of the Company's capital stock other than the Company's Series B Convertible Preferred Stock, $.00001 par value per share (the "Series B Preferred Stock"), entitled to seniority as to the payment of dividends or liquidation preference in relation to the Series C Preferred Stock;

WHEREAS, the Company previously exchanged all of the issued and outstanding shares of Series B Preferred Stock for shares of the Company's Series D Convertible Preferred Stock, par value $0.00001 per share (the "Series D Preferred Stock");

WHEREAS, the Series C Investors have previously consented and agreed that the Series D Preferred Stock would be senior to the Series C Preferred Stock with respect to the payment of dividends and liquidation preferences;

WHEREAS, pursuant to a securities purchase agreement (the "Purdue Securities Purchase Agreement") substantially in the form attached hereto as Exhibit A, the Company expects to issue and sell 200 shares of a newly created series of the Company's preferred stock, designated Series E Convertible Preferred Stock, par value $0.00001 per share (the "Series E Preferred Stock") to Purdue Pharma L.P., ("Purdue"), which Series E Preferred Stock shall have the relative rights, privileges and preferences set forth in the Certificate of Designations, Rights and Preferences of the Series E Convertible Preferred Stock of Novelos Therapeutics, Inc., in the form attached hereto as Exhibit B (the "Series E Certificate of Designations") and this Agreement is a condition to closing as stated in the Purdue Securities Purchase Agreement; and

WHEREAS, as a condition to closing the Purdue Securities Purchase Agreement, the Company and the holders of Series D Preferred Stock (the "Series D Investors") are entering into a Series D Preferred Stock Consent and Agreement to Exchange pursuant to which each outstanding share of Series D Preferred Stock and accumulated dividends thereon will be exchanged (the "Series D Exchange") for no more than 1.083 shares of Series E Preferred Stock and as a condition of consummating the Series D Exchange, the Series D Investors have required that the Company enter into this Agreement;

NOW, THEREFORE, in consideration of the promises referred to below, the Series C Investors, hereby agree with the Company, severally and not jointly, as follows:

1. Consent and Acknowledgement.

(a) Each of the Series C Investors hereby consents to the filing of the Series E Certificate of Designations, the execution of the Series D Preferred Stock Consent Exchange Agreement substantially in the form attached hereto as Exhibit C (the "Series D Exchange Agreement"), the execution of the Purdue Securities Purchase Agreement and the consummation of the Series D Exchange.

(b) Each of the Series C Investors hereby consents to the filing, with the Secretary of State of the State of Delaware, of a Certificate of Elimination pursuant to which all matters set forth in the Certificate of Designations, Preferences and Rights of Series B Convertible Preferred Stock of Novelos Therapeutics, Inc. with respect to the Company's Series B Convertible Preferred Stock, $0.00001 (the "Series B Preferred Stock") will be eliminated from the Company's Certificate of Incorporation and the shares that were designated as Series B Preferred Stock will be returned to the status of authorized but unissued shares of preferred stock of the Company, without designation as to series, in the form attached hereto as Exhibit D (the "Series B Certificate of Elimination").

(c) Each of the Series C Investors hereby consents to the filing, with the Secretary of State of the State of Delaware, following consummation of the Series D Exchange, of a Certificate of Elimination pursuant to which all matters set forth in the Series D Certificate of Designations with respect to the Series D Preferred Stock will be eliminated from the Company's Certificate of Incorporation and the shares that were designated as Series D Preferred Stock will be returned to the status of authorized but unissued shares of preferred stock of the Company, without designation as to series, in the form attached hereto as Exhibit E (the "Series D Certificate of Elimination").

(e) Each of the Series C Investors hereby acknowledges and agrees that it will not be entitled to an adjustment to either the conversion price of the shares of Series C Preferred Stock or an adjustment to the exercise price of warrants issued to it in connection with the sale of Series A Preferred Stock, as a result of the Series D Exchange or the sale of Series E Preferred Stock to Purdue. For the avoidance of doubt, this acknowledgement is limited to the transactions contemplated hereby and does not affect the rights, privileges and preferences of the Series C Preferred Stock, except as expressly provided herein.

2. Seniority of Series E Preferred Stock. Each of the Series C Investors hereby agree that the Series E Preferred Stock will be entitled to seniority as to the payment of dividends and liquidation preference in relation to the Series C Preferred Stock and that all references to Series B Preferred Stock in the Series C Certificate of Designations shall be deemed to be references to the Series E Preferred Stock.

3. Transferees. Each of the Series C Investors hereby agree that any transferees of any Series C Preferred Stock, other than a transferee who is already a Party, shall be required as a condition of such transfer to agree in writing that they will receive and hold such shares of Series C Preferred Stock subject to the provisions of this Agreement.

4. Representations and Warranties of Company. The Company represents and warrants to and agrees with each Series C Investor that:

(a) after the issuance of the Series E Preferred Stock and the filing of the Series E Certificate of Designations, the Series C Preferred Stock shall rank junior to the Series E Preferred Stock but shall rank senior to any and all other outstanding preferred stock or equity securities of the Company;

(b) Following the Series D Exchange, the Company will not reissue any shares of Series B Preferred Stock or Series D Preferred Stock.

5. Further Assurances. Each Party hereto shall do and perform or cause to be done and performed all such further acts and shall execute and deliver all such other agreements, certificates, instruments and documents as any other Party hereto reasonably may request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby and thereby.

6. Choice of Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York without regard to conflicts of laws principles that would result in the application of the substantive laws of another jurisdiction. Any action brought by either Party against the other concerning the transactions contemplated by this Agreement shall be brought only in the civil or state courts of New York or in the federal courts located in New York County. THE PARTIES AND THE INDIVIDUALS EXECUTING THIS AGREEMENT AND OTHER AGREEMENTS REFERRED TO HEREIN OR DELIVERED IN CONNECTION HEREWITH ON BEHALF OF THE COMPANY AGREE TO SUBMIT TO THE JURISDICTION OF SUCH COURTS AND WAIVE TRIAL BY JURY. The prevailing Party shall be entitled to recover from the other Party its reasonable attorney's fees and costs. In the event that any provision of this Agreement or any other agreement delivered in connection herewith is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any such provision which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision of any agreement.

7 . Notices. Unless otherwise provided, any notice required or permitted under this Agreement shall be given in writing and shall be deemed effectively given as hereinafter described (i) if given by personal delivery, then such notice shall be deemed given upon such delivery, (ii) if given by telex or telecopier, then such notice shall be deemed given upon receipt of confirmation of complete transmittal, (iii) if given by mail, then such notice shall be deemed given upon the earlier of (A) receipt of such notice by the recipient or (B) three (3) Business Days after such notice is deposited in first class mail, postage prepaid, and (iv) if given by a nationally recognized overnight air courier, then such notice shall be deemed given one (1) Business Day after delivery to such carrier. All notices shall be addressed to the Party to be notified at the address as follows, or at such other address as such Party may designate by ten (10) days' advance written notice to the other Party:

If to the Company:

Novelos Therapeutics, Inc.
One Gateway Center, Suite 504
Newton, MA 02458
Attention: Chief Executive Officer
Fax: (617) 964-6331

With a copy to:

Foley Hoag LLP
Seaport World Trade Center West
155 Seaport Boulevard
Boston, MA 02210
Attn: Paul Bork
Fax: (617) 832-7000

If to any of the Series C Investors:

To the addresses set forth on the signature page hereto.

With a copy to:

Grushko & Mittman, P.C.
551 Fifth Avenue, Suite 1601
New York, NY 10176
Attn: Edward Grushko, Esq.
Fax: (212) 697-3575

8. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original and all of which taken together shall constitute one and the same Agreement. Counterpart signature pages to this Agreement transmitted by facsimile transmission, by electronic mail in "portable document format" (".pdf") form, or by any other electronic means intended to preserve the original graphic and pictorial appearance of a document, will have the same effect as physical delivery of the paper document bearing an original signature.

9. This Agreement shall be null and void and of no further force and effect if the filing of the Series E Certificate of Designations, the execution of the Series D Exchange Agreement, the execution of the Purdue Securities Purchase Agreement and the consummation of the Series D Exchange do not occur on or before 5:00 p.m., New York time, on February 27, 2009.

IN WITNESS WHEREOF, each of the Parties has executed this Agreement as of the date first written above.

NOVELOS THERAPEUTICS, INC.

By: _____
Name: Harry S. Palmin
Title: President and Chief Executive Officer

LONGVIEW FUND, LP

By: _____
Name: _____
Title: _____
Address:

LONGVIEW EQUITY FUND, LP

By: _____
Name: _____
Title: _____
Address:

SUNRISE EQUITY PARTNERS, LP

By: _____
Name: _____
Title: _____
Address:

LONGVIEW INTERNATIONAL EQUITY FUND, LP

By: _____
Name: _____
Title: _____
Address:

Exhibit E

Form of 2007 Reg Rights Amendment

[See Exhibit 10.5 to this filing]

Exhibit F

Form of 2009 Reg Rights Agreement

[See Exhibit 10.2 to this filing]

Exhibit G

Form of Series B Warrant Amendment

[See Exhibit 10.4 to this filing]

Exhibit H

Form of Series D Warrant Amendment

[See Exhibit 10.4 to this filing]

Exhibit I

Form of Certificate of Elimination of Series B Convertible Preferred Stock

[See Exhibit 4.3 to this filing]

Exhibit J

Form of Certificate of Elimination of Series D Convertible Preferred Stock

[See Exhibit 4.4 to this filing]

Schedule A

Series D Preferred Stock Exchanged for Series E Preferred Stock

Investor group	Series D Shares Before Exchange	Dividend Accrued 4/1/08-2/9/09	Series E Shares After Exchange
Xmark Opportunity Fund, Ltd.	54.80	211,665.00	59.033300
Xmark Opportunity Fund, L.P.	27.40	105,832.50	29.516650
Xmark JV Investment Partners, LLC	27.40	105,832.50	29.516650
Total Xmark	109.60	423,330.00	118.066600
Caduceus Capital Master Fund Limited	51.80	200,077.50	55.801550
Caduceus Capital II, L.P.	39.17	151,294.13	42.19588250
Summer Street Life Sciences Investors	10.00	38,625.00	10.772500
UBS Eucalyptus Fund, L.L.C.	27.170	104,944.13	29.26888250
PW Eucalyptus Fund, Ltd.	3.1350	12,108.94	3.377178750
Total Orbimed	131.2750	507,049.69	141.415994
Knoll Special Opportunities Fund II Master Fund, Ltd.	49.80	192,352.50	53.647050
Europa International, Inc.	61.80	238,702.50	66.574050
Total Knoll	111.60	431,055.00	120.221100
Hunt BioVentures LP	61.03	235,709.06	65.739181250
Total	413.50	$1,597,143.75	445.442875
		D/E Exchange Ratio	1.0772500

WARRANT AMENDMENT AGREEMENT

THIS WARRANT AMENDMENT AGREEMENT (" **Amendment**") is made as of this 11th day of February, 2009 by and among Novelos Therapeutics, Inc., a Delaware corporation (the "**Company**") and the undersigned holders of warrants to purchase 7,500,000 shares of the Company's common stock dated May 2, 2007 (the "**Series B Warrants**") issued pursuant a certain Securities Purchase Agreement, dated as of April 12, 2007, by and among the Corporation and the Investors signatory thereto (as amended on May 2, 2007, the "**Series B Purchase Agreement**"). All capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Series B Warrants.

WHEREAS, pursuant to Section 21 of the Series B Warrants, the Series B Warrants may amended with the written consent of the Company and the Requisite Holders (as such term is defined in the Series B Purchase Agreement) and any such amendment shall apply to all of the Series B Warrants; and

WHEREAS, the Company and the undersigned holders of Series B Warrants, which holders include the Requisite Holders, desire to amend the Series B Warrants;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree that the Series B Warrants are hereby amended as follows:

1) The Expiration Date, as defined in Paragraph 1, is hereby changed to December 31, 2015 from April 11, 2013.

6) Section 20 is hereby deleted in its entirety.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, the undersigned have executed this Warrant Amendment Agreement or caused its duly authorized officers to execute this Warrant Amendment Agreement as of the date first above written.

NOVELOS THERAPEUTICS, INC.

By: /s/ Harry S.Palmin
Name: Harry S. Palmin
Title: President and CEO

WARRANTHOLDERS

Xmark Opportunity Fund, Ltd.
Xmark Opportunity Fund, L.P.
Xmark JV Investment Partners, LLC

By: /s/ Mitchell D. Kaye
Name: Mitchell D. Kaye
Title: Authorized Signatory

Caduceus Capital Master Fund Limited
Caduceus Capital II, L.P.
UBS Eucalyptus Fund, L.L.C.
PW Eucalyptus Fund, Ltd.

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, Orbimed Advisors

Knoll Special Opportunities Fund II Master Fund, Ltd. (1)
Europa International, Inc.

By: /s/ Fred Knoll
Name: Fred Knoll
Title: Portfolio Manager

Hunt-BioVentures, L.P.
By : HBV GP, L.L.C, its General Partner

By: /s/ J.Fulton Murray, III
Name: J. Fulton Murray, III
Title: Manager

(1) Formerly Knoll Capital Fund II Master Fund, Ltd.

WARRANT AMENDMENT AGREEMENT

THIS WARRANT AMENDMENT AGREEMENT (" **Amendment**") is made as of this 11th day of February, 2009 by and among Novelos Therapeutics, Inc., a Delaware corporation (the "**Company**") and the undersigned holders of warrants to purchase 4,365,381 shares of the Company's common stock dated April 11, 2008 (the " **Series D Warrants**") issued pursuant a certain Securities Purchase Agreement, dated as of March 26, 2008, by and among the Corporation and the Investors signatory thereto (as amended on April 9, 2008, the "**Series D Purchase Agreement**"). All capitalized terms used but not defined herein shall have the meanings ascribed thereto in the Series D Warrants.

WHEREAS, pursuant to Section 21 of the Series D Warrants, the Series D Warrants may amended with the written consent of the Company and the Requisite Holders (as such term is defined in the Series D Purchase Agreement) and any such amendment shall apply to all of the Series D Warrants; and

WHEREAS, the Company and the undersigned holders of Series D Warrants, which holders include the Requisite Holders, desire to amend the Series D Warrants;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree that the Series D Warrants are hereby amended as follows:

1) The Expiration Date, as defined in Paragraph 1, is hereby changed to December 31, 2015 from April 11, 2013.

6) Section 20 is hereby deleted in its entirety.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, the undersigned have executed this Warrant Amendment Agreement or caused its duly authorized officers to execute this Warrant Amendment Agreement as of the date first above written.

NOVELOS THERAPEUTICS, INC.

By: /s/ Harry S. Palmin
Name: Harry S. Palmin
Title: President and CEO

WARRANTHOLDERS

Xmark Opportunity Fund, Ltd.
Xmark Opportunity Fund, L.P.
Xmark JV Investment Partners, LLC

By: /s/ Mitchell D. Kaye
Name: Mitchell D. Kaye
Title: Authorized Signatory

Knoll Special Opportunities Fund II Master Fund, Ltd. (1)
Europa International, Inc.

By: /s/ Fred Knoll
Name: Fred Knoll
Title: Portfolio Manager

(1) Formerly Knoll Capital Fund II Master Fund, Ltd.

Caduceus Capital Master Fund Limited
Caduceus Capital II, L.P.
UBS Eucalyptus Fund, L.L.C.
PW Eucalyptus Fund, Ltd.
Summer Street Life Sciences Hedge Fund Investors, LLC

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, Orbimed Advisors

Hunt-BioVentures, L.P.
By : HBV GP, L.L.C, its General Partner

By: /s/ J. Fulton Murray, III
Name: J. Fulton Murray, III
Title: Manager

AMENDMENT NO. 2
TO
REGISTRATION RIGHTS AGREEMENT

This AMENDMENT TO REGISTRATION RIGHTS AGREEMENT (the "Amendment") dated as of February 11, 2009, is entered into by and between Novelos Therapeutics, Inc., a Delaware Corporation (the "Company") and the entities listed on the signature pages hereto (collectively, the "Series D Holders").

WHEREAS, the Company and the Series D Holders have entered into that certain Registration Rights Agreement, dated as of May 2, 2007, as amended on April 11, 2008 (as so amended, the "Registration Agreement");

WHEREAS, pursuant to Section 7(a) of the Registration Agreement, the Registration Agreement may be amended with the written consent of the Company and the Requisite Holders (as defined in the Registration Agreement);

WHEREAS, the Company and the Series D Holders, which holders include the Requisite Holders, desire to amend the Registration Agreement as hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the parties hereto agree as follows:

1. Amendment. The Registration Agreement is hereby amended by deleting the definition of "Registrable Securities" therein and replacing it with the following definition:

"**Registrable Securities**" shall mean 12,000,000 shares of Common Stock (subject to adjustment in the event of stock splits, stock dividends or similar transactions with respect to the Common Stock) issuable upon conversion of the Company's Series E Convertible Preferred Stock, $.00001 par value per share (the "Series E Preferred Stock"), which Series E Preferred Stock was issued in exchange for shares of the Company's Series D Convertible Preferred Stock, $.00001 par value per share, pursuant to that certain Consent and Exchange Agreement dated as of the date hereof by and among the Company and the other parties thereto, the offer and sale of which shares of Common Stock are currently registered under the Securities Act pursuant a Registration Statement on Form S-1 (Registration No. 333-143263); provided, that, a security shall cease to be a Registrable Security upon sale pursuant to a Registration Statement.

2. Applicable Law. This Amendment shall be governed by, and construed and enforced in accordance with, the substantive laws of the State of New York, without regard to its principles of conflicts of laws.

3. Effect on Registration Agreement. Except as modified hereby, the Registration Agreement shall remain in full force and effect.

4. Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be an original, but all of which together shall be deemed to constitute one instrument.

IN WITNESS WHEREOF the undersigned have executed this Amendment to the Registration Rights Agreement as of the date first above written.

NOVELOS THERAPEUTICS, INC.

By: /s/ Harry S. Palmin
Name: Harry S. Palmin
Title: President and CEO

SERIES D HOLDERS:

Xmark Opportunity Fund, Ltd.
Xmark Opportunity Fund, L.P.
Xmark JV Investment Partners, LLC

By: /s/ Mitchell D. Kaye
Name: Mitchell D. Kaye
Title: Authorized Signatory

Caduceus Capital Master Fund Limited
Caduceus Capital II, L.P.
UBS Eucalyptus Fund, L.L.C.
PW Eucalyptus Fund, Ltd.

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Partner, Orbimed Advisors

Knoll Special Opportunities Fund II Master Fund, Ltd.
Europa International, Inc. (1)

By: /s/ Fred Knoll
Name: Fred Knoll
Title: Portfolio Manager

Hunt-BioVentures, L.P.

By : HBV GP, L.L.C, its General Partner

By: /s/ J. Fulton Murray, III
Name: J. Fulton Murray, III
Title: Manager

(1) Formerly Knoll Capital Fund II Master Fund Ltd.

FOR IMMEDIATE RELEASE

NOVELOS THERAPEUTICS AND MUNDIPHARMA SIGN EXCLUSIVE COLLABORATION AGREEMENT IN EUROPE AND JAPAN

- - - -

$95mil for Cancer Compound through
Equity Investment, Milestones and Fixed Sales-Based Payments, Plus Royalties

NEWTON, Mass., February 11, 2009 – Novelos Therapeutics, Inc. (OTCBB: NVLT), a biopharmaceutical company focused on the development of therapeutics to treat cancer and hepatitis, announced today that Novelos signed an exclusive collaboration agreement with Mundipharma International Corporation Limited to commercialize in Europe and Asia / Pacific (excluding China) Novelos' lead compound, NOV-002, which is in a pivotal Phase 3 trial for non-small cell lung cancer under a Special Protocol Assessment (SPA) and Fast Track. NOV-002 has also demonstrated positive results in Phase 2 trials for other cancer indications.

In parallel, Novelos has also closed a private placement with Purdue Pharma L.P. resulting in $10 million in gross proceeds through the sale of convertible preferred stock and warrants to purchase its common stock. Novelos sold 200 shares of Series E convertible preferred stock, having a stated value equal to $50,000 per share, a cumulative annual dividend of 9% of stated value and a conversion price of $0.65 per share of common stock. Purdue also received warrants expiring on December 31, 2015 to purchase an aggregate of 9,230,769 shares of common stock at an exercise price of $0.65 per share.

Under the terms of the collaboration agreement, Novelos may receive up to $25 million of launch milestones and $60 million of fixed sales-based payments. Novelos will receive a double-digit royalty, which increases as the annual sales increase in the licensed territories. Mundipharma will be responsible for certain development activities, regulatory submissions and commercialization of NOV-002 in the licensed territories. Novelos retains all rights and responsibilities in the U.S.A. and the rest of the Americas.

"I am very pleased to be collaborating with Mundipharma and Purdue, which are innovative independent associated pharmaceutical companies with ample resources and a proven track record of developmental and commercialization expertise," said Harry Palmin, President and CEO of Novelos. "This transaction will provide the remaining capital to complete our pivotal, fully-enrolled, 840-patient Phase 3 lung cancer trial, which is currently expected to conclude in late 2009."

According to Åke Wikström, Mundipharma's Regional Director – Europe, "NOV-002 is an important addition to our oncology pipeline and reinforces our commitment to increasing the treatment options available for cancer patients and improving their quality of life through the development and commercialization of novel therapeutics."

Ferghana Partners (New York, London and Boston) served as financial and strategic transaction advisor to Novelos. The preferred stock and warrants were issued in a private placement transaction under Regulation D of the Securities of Act of 1933 and have not been registered under the Securities Act of 1933, as amended, or any state securities laws, and may not be offered or sold in the United States absent registration with the Securities and Exchange Commission (the "SEC") or an applicable exemption from the registration requirements. Novelos has agreed to file a registration statement with the SEC covering resales of the common stock issuable upon conversion of the newly issued shares of preferred stock and upon exercise of the warrants.

About Mundipharma International Corporation Limited and Purdue Pharma L.P.
The Purdue/Mundipharma/Napp independent associated companies are privately owned companies and joint ventures covering the world's pharmaceutical markets. The companies have particular expertise in drug delivery systems and these are applied to a range of analgesics, respiratory treatments, and cardiovascular drugs. The companies also have a growing presence in the oncology market, and products in the areas of attention deficit hyperactivity disorder, antiseptics and laxatives. For more information: www.mundipharma.co.uk

About Novelos Therapeutics, Inc.
Novelos Therapeutics, Inc. is a biopharmaceutical company commercializing oxidized glutathione-based compounds for the treatment of cancer and hepatitis. NOV-002, the lead compound currently in Phase 3 development for lung cancer under SPA and Fast Track, acts together with chemotherapy as a chemoprotectant and a chemopotentiator. NOV-002 is also in Phase 2 development for early-stage breast cancer and chemotherapy-resistant ovarian cancer. Novelos has a partnership with Mundipharma to develop and commercialize NOV-002 in Europe and Japan. Novelos' second compound, NOV-205, acts as a hepatoprotective agent with immunomodulating and anti-inflammatory properties. NOV-205 is in Phase 1b development for chronic hepatitis C non-responders. Both compounds have been partnered with Lee's Pharm in China. For additional information about Novelos please visit www.novelos.com

# # #

COMPANY
Harry S. Palmin, President and CEO
Ph: 617-244-1616 x11
Email: hpalmin@novelos.com

INVESTOR RELATIONS
Stephen Lichaw
Ph: 201-240-3200
Email: slichaw@novelos.com

Novelos Therapeutics, Inc.
One Gateway Center, Suite 504
Newton, MA 02458

This news release contains forward-looking statements. Such statements are valid only as of today, and we disclaim any obligation to update this information. These statements are subject to known and unknown risks and uncertainties that may cause actual future experience and results to differ materially from the statements made. These statements are based on our current beliefs and expectations as to such future outcomes. Drug discovery and development involve a high degree of risk. Factors that might cause such a material difference include, among others, uncertainties related to the ability to attract and retain partners for our technologies, the identification of lead compounds, the successful preclinical development thereof, the completion of clinical trials, the FDA review process and other government regulation, our pharmaceutical collaborators' ability to successfully develop and commercialize drug candidates, competition from other pharmaceutical companies, product pricing and third-party reimbursement.