Filed pursuant to Rule 424(b)(3)
File No. 333-182726

Prospectus Supplement No. 5
(To Prospectus dated May 9, 2013)

NOVELOS THERAPEUTICS, INC.
4,000,000 shares of common stock

This prospectus supplement supplements the Prospectus dated May 9, 2013, relating to the resale, from time to time, of up to 4,000,000 shares of our common stock by the stockholders referred to throughout the Prospectus as "selling stockholder." This prospectus supplement should be read in conjunction with the Prospectus.

Quarterly Report on Form 10-Q

On November 13, 2013, we filed with the Securities and Exchange Commission our Quarterly Report on Form 10-Q for the quarter ended September 30, 2013. The text of the Form 10-Q is attached hereto.

Investing in our common stock involves a high degree of risk.
See Risk Factors beginning on page 6 of the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed on the adequacy or accuracy of this prospectus supplement. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is November 13, 2013

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

[mark one]

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended: September 30, 2013

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 333-119366

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

DELAWARE	**04-3321804**
(*State or other jurisdiction of incorporation or organization*)	(*IRS Employer Identification No.*)

3301 Agriculture Drive, Madison, Wisconsin 53716
(*Address of principal executive offices*)

(608) 441-8120
(*Registrant's telephone number, including area code*)

(*Former name, former address and former fiscal year, if changed since last report)*

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐(Do not check if a smaller reporting company)	Smaller reporting company	☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Number of shares outstanding of the issuer's common stock as of the latest practicable date: 57,397,997 shares of common stock, $0.00001 par value per share, as of November 12, 2013.

NOVELOS THERAPEUTICS, INC.

FORM 10-Q INDEX

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

NOVELOS THERAPEUTICS, INC.
(a Development-Stage Company)
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)

	September 30, 2013	December 31, 2012
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 5,110,493	$ 4,677,545
Restricted cash	55,000	55,000
Prepaid expenses and other current assets	329,352	327,393
Deferred financing costs	—	70,539
Total current assets	5,494,845	5,130,477
RESTRICTED CASH	—	2,000,000
FIXED ASSETS, NET	2,449,786	2,645,003
GOODWILL	1,675,462	1,675,462
OTHER ASSETS	27,222	27,222
TOTAL ASSETS	$ 9,647,315	$ 11,478,164
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable and accrued liabilities	$ 1,157,313	$ 716,990
Derivative liability	3,469,548	13,304
Capital lease obligations, current portion	2,309	2,397
Total current liabilities	4,629,170	732,691
LONG-TERM LIABILITIES:		
Notes payable	450,000	450,000
Deferred rent	141,854	135,404
Capital lease obligations, net of current portion	—	1,694
Total long-term liabilities	591,854	587,098
TOTAL LIABILITIES	5,221,024	1,319,789
COMMITMENTS AND CONTINGENCIES (Note 7 and Note 9)		
STOCKHOLDERS' EQUITY:		
Preferred stock, $0.00001 par value; 7,000 shares authorized; none issued and outstanding as of September 30, 2013 and December 31, 2012	—	—
Common stock, $0.00001 par value; 150,000,000 shares authorized; 57,397,997 and 46,397,997 shares issued and outstanding at September 30, 2013 and December 31, 2012, respectively	574	464
Additional paid-in capital	51,536,776	50,435,311
Deficit accumulated during the development stage	(47,111,059)	(40,277,400)
Total stockholders' equity	4,426,291	10,158,375
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 9,647,315	$ 11,478,164

The accompanying notes are an integral part of these financial statements.

NOVELOS THERAPEUTICS, INC.
(a Development-Stage Company)
CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,		Cumulative Development-Stage Period from November 7, 2002 (date of inception) through September 30,
	2013	2012	2013	2012	2013
COSTS AND EXPENSES:					
Research and development	$ 2,066,827	$ 1,253,066	$ 5,306,277	$ 3,896,005	$ 31,234,002
General and administrative	843,622	800,952	3,039,074	2,695,503	16,333,784
Merger costs	—	—	—	—	799,133
Total costs and expenses	2,910,449	2,054,018	8,345,351	6,591,508	48,366,919
LOSS FROM OPERATIONS	(2,910,449)	(2,054,018)	(8,345,351)	(6,591,508)	(48,366,919)
OTHER INCOME (EXPENSE):					
Grant income	—	—	—	—	244,479
Gain (loss) on revaluation of derivative warrants	1,597,372	3,902	2,263,756	(42,178)	2,217,744
Loss on issuance of derivative warrants	—	—	(744,957)	—	(744,957)
Interest expense, net	(2,241)	(2,096)	(7,107)	(6,240)	(462,567)
Other income	—	—	—	—	1,161
Total other income (expense), net	1,595,131	1,806	1,511,692	(48,418)	1,255,860
NET LOSS	(1,315,318)	(2,052,212)	(6,833,659)	(6,639,926)	(47,111,059)
DEEMED DIVIDEND ON WARRANTS	—	(543,359)	—	(543,359)	(543,359)
NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS	$ (1,315,318)	$ (2,595,571)	$ (6,833,659)	$ (7,183,285)	$ (47,654,418)
BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE	$ (0.02)	$ (0.06)	$ (0.12)	$ (0.18)	$ (2.82)
SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE	57,397,997	43,286,515	55,383,345	39,611,899	16,876,454

The accompanying notes are an integral part of these financial statements.

NOVELOS THERAPEUTICS, INC.
(a Development-Stage Company)
CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

	Nine Months Ended September 30,		Cumulative Development-Stage Period from November 7, 2002 through September 30,
	2013	2012	2013
Net loss	$ (6,833,659)	$ (6,639,926)	$ (47,111,059)
Adjustments to reconcile net loss to cash used in operating activities:			
Depreciation and amortization	325,660	384,083	3,238,951
Stock-based compensation	1,101,465	1,159,911	5,459,635
Intrinsic value of beneficial conversion feature associated with convertible debt	—	—	471,765
Issuance of stock for technology and services	—	—	89,520
Impairment of intangible assets	—	—	19,671
Loss on disposal of fixed assets	4,513	—	40,990
(Gain) loss on revaluation of derivative warrants	(2,263,756)	42,178	(2,217,744)
Loss on issuance of derivative warrants	744,957	—	744,957
Changes in:			
Prepaid expenses and other current assets	(1,959)	(81,012)	(313,182)
Accounts payable and accrued liabilities	440,323	234,767	777,184
Accrued interest	—	—	463,722
Deferred rent	6,450	8,828	141,854
Cash used in operating activities	(6,476,006)	(4,891,171)	(38,193,736)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Cash acquired in a business combination	—	—	905,649
Purchases of fixed assets	(134,956)	(37,142)	(5,719,239)
Proceeds from sale of fixed assets	—	—	7,000
Purchases of short-term certificates of deposit	—	—	(5,500,730)
Proceeds from short-term certificates of deposit	—	—	5,500,730
Change in restricted cash	2,000,000	—	(55,000)
Payment for intangible assets	—	—	(19,671)
Cash provided by (used in) investing activities	1,865,044	(37,142)	(4,881,261)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of convertible notes	—	—	2,720,985
Proceeds from long-term obligations	—	—	1,677,945
Payments on long-term obligations	—	—	(1,227,944)
Payments on capital lease obligations	(1,782)	(1,661)	(8,665)
Proceeds from issuance of common stock, net of issuance costs	4,975,153	4,870,978	43,688,181
Proceeds from exercise of warrants	—	150,800	1,338,300
Repurchase of common stock	—	—	(31,667)
Cash in lieu of fractional shares in a business combination	—	—	(145)
Change in deferred financing costs	70,539	—	28,500
Cash provided by financing activities	5,043,910	5,020,117	48,185,490
INCREASE IN CASH AND EQUIVALENTS	432,948	91,804	5,110,493
CASH AND EQUIVALENTS AT BEGINNING OF PERIOD	4,677,545	5,505,960	—
CASH AND EQUIVALENTS AT END OF PERIOD	$ 5,110,493	$ 5,597,764	$ 5,110,493
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION			
Fair value of warrants classified as derivative liability	$ 5,720,000	$ —	$ 5,720,000
Interest paid	$ —	$ 43,855	$ 208,689
Fair value of derivative warrants reclassified to equity upon cashless exercise	$ —	$ —	$ 92,194
Issuance of common stock in connection with the conversion of notes payable and $463,722 in accrued interest	$ —	$ —	$ 3,184,707
Fair value of assets acquired in exchange for securities in a business combination	$ —	$ —	$ 78,408
Fair value of liabilities assumed in exchange for securities in a business combination	$ —	$ —	$ (439,616)
Goodwill resulting from business combination	$ —	$ —	$ 1,675,462

The accompanying notes are an integral part of these financial statements.

1. NATURE OF BUSINESS, ORGANIZATION AND GOING CONCERN

Novelos Therapeutics, Inc. ("Novelos" or the "Company") is a pharmaceutical company developing novel drugs for the treatment and diagnosis of cancer.

The Company is subject to a number of risks similar to those of other small pharmaceutical companies. Principal among these risks are dependence on key individuals, competition from substitute products and larger companies, the successful development and marketing of its products in a highly regulated environment and the need to obtain additional financing necessary to fund future operations.

The accompanying financial statements have been prepared on a basis that assumes that the Company will continue as a going concern and that contemplates the continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the normal course of business. The Company has incurred losses since inception in devoting substantially all of its efforts toward research and development and has an accumulated deficit of $47,111,059 at September 30, 2013. During the nine months ended September 30, 2013, the Company generated a net loss of $6,833,659 and the Company expects that it will continue to generate operating losses for the foreseeable future. The Company believes that its cash balance at September 30, 2013 is adequate to fund operations at budgeted levels through February 2014. The Company's ability to execute its operating plan beyond that time depends on its ability to obtain additional funding via the sale of equity and/or debt securities, a strategic transaction or otherwise. The Company plans to continue to actively pursue financing alternatives, but there can be no assurance that it will obtain the necessary funding. The accompanying financial statements do not include any adjustments that might result from the outcome of this uncertainty.

The accompanying balance sheet as of December 31, 2012 has been derived from audited financial statements. The accompanying unaudited consolidated balance sheet as of September 30, 2013, the consolidated statements of operations for the three and nine months ended September 30, 2013 and 2012 and the cumulative period November 7, 2002 (date of inception) through September 30, 2013, and the consolidated statements of cash flows for the three and nine months ended September 30, 2013 and 2012 and the cumulative period November 7, 2002 (date of inception) through September 30, 2013 and the related interim information contained within the notes to the consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information. Accordingly, they do not include all of the information and the notes required by U.S. generally accepted accounting principles for complete financial statements. In the opinion of management, the unaudited interim consolidated financial statements reflect all adjustments, consisting of normal and recurring adjustments, necessary for the fair presentation of the Company's consolidated financial position at September 30, 2013 and consolidated results of its operations and its cash flows for the three and nine months ended September 30, 2013 and 2012 and the period from November 7, 2002 (inception) to September 30, 2013. The results for the nine months ended September 30, 2013 are not necessarily indicative of future results.

These unaudited consolidated financial statements should be read in conjunction with the audited financial statements and related notes thereto included in the Company's Form 10-K, which was filed with the SEC on March 28, 2013.

Principles of Consolidation — The consolidated financial statements include the accounts of the Company and the accounts of its wholly-owned subsidiary. All intercompany accounts and transactions have been eliminated in consolidation.

Restricted Cash — The Company accounts for cash that is restricted for other than current operations as restricted cash. Restricted cash (current) at September 30, 2013 consists of a certificate of deposit of $55,000 required under the Company's lease agreement for its Madison, Wisconsin facility. In October 2013, the Company received a waiver of its agreement to use the proceeds of a November, 2012 private placement for the construction of additional manufacturing facilities at its Madison, WI location. Accordingly, the corresponding amount of $1,878,232 was reclassified from restricted cash to cash and cash equivalents on the balance sheet as of September 30, 2013 (see Note 10).

Deferred Financing Costs — Incremental direct costs associated with the issuance of the Company's common stock are deferred and are recognized as a reduction of the gross proceeds upon completion of the related equity transaction. In the event that the equity transaction is not probable or is aborted, the Company expenses such costs. There were no deferred financing costs as of September 30, 2013. At December 31, 2012, the Company had recorded $70,539 of costs in connection with a public offering of stock. During the nine months ended September 30, 2013, upon the completion of the associated equity transaction, the deferred costs were offset against the gross proceeds received (see Note 3).

Goodwill — Intangible assets at September 30, 2013 consist of goodwill recorded in connection with a business combination with Cellectar, Inc. (Cellectar), a privately held Wisconsin corporation that designed and developed products to detect, treat and monitor a wide variety of human cancers (the Acquisition). Goodwill is not amortized, but is required to be evaluated for impairment annually or whenever events or changes in circumstances suggest that the carrying value of an asset may not be recoverable. The Company evaluates goodwill for impairment annually in the fourth fiscal quarter and additionally on an interim basis if an event occurs or there is a change in circumstances, such as a decline in the Company's stock price or a material adverse change in the business climate, which would more likely than not reduce the fair value of the reporting unit below its carrying amount. There were no changes in goodwill during the nine months ended September 30, 2013.

Stock-Based Compensation — The Company uses the Black-Scholes option-pricing model to calculate the grant-date fair value of stock option awards. The resulting compensation expense, net of expected forfeitures, for awards that are not performance-based is recognized on a straight-line basis over the service period of the award, which is generally three years for stock options. For stock options with performance-based vesting provisions, recognition of compensation expense, net of expected forfeitures, commences if and when the achievement of the performance criteria is deemed probable. The compensation expense, net of expected forfeitures, for performance-based stock options is recognized over the relevant performance period. Non-employee stock-based compensation is accounted for in accordance with the guidance of Topic 505, *Equity* of the Financial Accounting Standards Board Accounting Standards Codification ("FASB ASC"). As such, the Company recognizes expense based on the estimated fair value of options granted to non-employees over their vesting period, which is generally the period during which services are rendered and deemed completed by such non-employees.

Fair Value of Financial Instruments — The guidance under FASB ASC Topic 825, *Financial Instruments*, requires disclosure of the fair value of certain financial instruments. Financial instruments in the accompanying financial statements consist of cash equivalents, accounts payable and long-term obligations. The carrying amount of cash equivalents and accounts payable approximate their fair value due to their short-term nature. The carrying value of long-term obligations, including the current portion, approximates fair value because the fixed interest rate approximates current market interest rates available on similar instruments.

Derivative Instruments — The Company generally does not use derivative instruments to hedge exposures to cash flow or market risks. However, certain warrants to purchase common stock that do not meet the requirements for classification as equity, in accordance with the Derivatives and Hedging Topic of the FASB ASC, are classified as liabilities. In such instances, net-cash settlement is assumed for financial reporting purposes, even when the terms of the underlying contracts do not provide for a net-cash settlement. These warrants are considered derivative instruments because the agreements contain "down-round" provisions whereby the number of shares for which the warrants are exercisable and/or the exercise price of the warrants are subject to change in the event of certain issuances of stock at prices below the then-effective exercise price of the warrants. The number of shares issuable under such warrants was 16,527,310 and 27,310 at September 30, 2013 and December 31, 2012, respectively. The primary underlying risk exposure pertaining to the warrants is the change in fair value of the underlying common stock. Such financial instruments are initially recorded at fair value with subsequent changes in fair value recorded as a component of gain or loss on derivatives on the consolidated statements of operations in each reporting period. If these instruments subsequently meet the requirements for equity classification, the Company reclassifies the fair value to equity. At September 30, 2013 and December 31, 2012, these warrants represented the only outstanding derivative instruments issued or held by the Company.

2. FAIR VALUE

In accordance with Fair Value Measurements and Disclosures Topic of the FASB ASC 820, the Company groups its financial assets and financial liabilities generally measured at fair value in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value.

- Level 1: Input prices quoted in an active market for identical financial assets or liabilities.

- Level 2: Inputs other than prices quoted in Level 1, such as prices quoted for similar financial assets and liabilities in active markets, prices for identical assets and liabilities in markets that are not active or other inputs that are observable or can be corroborated by observable market data.
- Level 3: Input prices quoted that are significant to the fair value of the financial assets or liabilities which are not observable or supported by an active market.

Assets and liabilities measured at fair value on a recurring basis are summarized below:

	September 30, 2013			
	Level 1	Level 2	Level 3	Fair Value
Liabilities:				
Warrants	$ -	$ 3,469,548	$ -	$ 3,469,548

	December 31, 2012			
	Level 1	Level 2	Level 3	Fair Value
Liabilities:				
Warrants	$ -	$ 13,304	$ -	$ 13,304

The Company uses a modified option-pricing model together with assumptions that consider, among other variables, the fair value of the underlying stock, risk-free interest rates ranging from 0.10% to 1.22%, volatility ranging from 75% to 115%, the contractual term of the warrants ranging from 0.39 to 4.39 years, future financing requirements and dividend rates in estimating fair value for the warrants considered to be derivative instruments.

3. STOCKHOLDERS' EQUITY

February 2013 Public Offering

On February 20, 2013, pursuant to securities purchase agreements entered into with investors on February 12, 2013, the Company completed a registered public offering of an aggregate of 11,000,000 shares of its common stock, warrants to purchase up to an aggregate of 11,000,000 shares of our common stock at an exercise price of $0.50 per share which are exercisable for five years from issuance, and warrants to purchase up to an aggregate of 5,500,000 shares of our common stock at an exercise price of $0.50 per share which are exercisable for one year from issuance, for gross proceeds of $5,500,000 and net proceeds of $4,975,153 after deducting transaction costs, which include placement agent fees and legal and accounting costs associated with the offering (the "February Offering"). The warrant exercise price and the common stock issuable pursuant to such warrants are subject to adjustment for stock dividends, stock splits and similar capital reorganizations, in which event the rights of the warrant holders would be adjusted as necessary so that they would be equivalent to the rights of the warrant holders prior to such event. The exercise price of the warrants is also subject to adjustment for dilutive issuances. The warrants did not meet the criteria for equity classification as a result of the down-round protection. Accordingly the fair value of $5,720,000 was recorded as a derivative liability on the date of issuance. The fair value upon issuance exceeded the net proceeds received in the offering. The excess of $744,957 was recorded as a loss on issuance of derivative warrants on the Company's consolidated statement of operations for the nine months ended September 30, 2013. The Company utilized a modified option-pricing model to determine the fair value of the warrants (see Note 2). The change in fair value from June 30, 2013 through September 30, 2013 of $1,595,000 is recorded as a gain on derivatives in the three months ended September 30, 2013. The change in fair value from issuance date through September 30, 2013 of $2,255,000 is recorded as a gain on derivatives in the nine months ended September 30, 2013. In the February Offering, the Company paid a cash fee of $385,000 and issued warrants to purchase 770,000 shares of its common stock at an exercise price of $0.625 per share expiring on February 4, 2018 to the placement agent. The placement agent warrants do not contain down-round protection.

Common Stock Warrants

The following table summarizes information with regard to outstanding warrants to purchase common stock as of September 30, 2013.

Offering	Number of Shares Issuable Upon Exercise of Outstanding Warrants		Exercise Price	Expiration Date
February 2013 Public Offering (1)	11,000,000	$	0.50	February 20, 2018
February 2013 Public Offering (1)	5,500,000	$	0.50	February 20, 2014
February 2013 Public Offering – Placement Agents	770,000	$	0.625	February 4, 2018
November 2012 Private Placement	1,000,000	$	1.25	November 2, 2017
June 2012 Public Offering	2,981,440	$	1.25	June 13, 2017
December 2011 Underwritten Offering	9,248,334	$	0.60	December 6, 2016
April 2011 Private Placement	6,058,811	$	0.75	March 31, 2016
Legacy warrants (1)	27,310	$	0.50	July 27, 2015
Legacy warrants	105,040	$	16.065	July 27, 2015
Legacy warrants	91,524	$	99.45-100.98	December 31, 2015
Total	36,782,459			

(1) The exercise prices of these warrants are subject to adjustment for "down-rounds" and have been accounted for as derivative instruments as described in Note 2.

On January 31, 2013, warrants to purchase 2,000,000 shares of common stock at an exercise price of $ 1.00 per share expired unexercised.

4. STOCK-BASED COMPENSATION

Accounting for Stock-Based Compensation

The Company uses the Black-Scholes option-pricing model to calculate the grant-date fair value of stock option awards. The resulting compensation expense, net of expected forfeitures, for non-performance based awards is recognized on a straight-line basis over the service period of the award, which is generally three years for stock options. For stock options with performance-based vesting provisions, recognition of compensation expense, net of expected forfeitures, commences if and when the achievement of the performance criteria is deemed probable. The compensation expense, net of expected forfeitures, for performance-based stock options is recognized over the relevant performance period. Evaluation of the probability of meeting performance targets is evaluated at the end of each reporting period. Non-employee stock-based compensation is accounted for in accordance with the guidance of FASB ASC Topic 505, *Equity*. As such, the Company recognizes expense based on the estimated fair value of options granted to non-employees over their vesting period, which is generally the period during which services are rendered and deemed completed by such non-employees.

The following table summarizes amounts charged to expense for stock-based compensation related to employee and director stock-option grants and stock-based compensation recorded in connection with stock options granted to non-employee consultants:

	Three Months Ended September 30,		Nine Months Ended September 30,		Cumulative Development-Stage Period from November 7, 2002 through September 30,
	2013	2012	2013	2012	2013
Employee and director stock option grants:					
Research and development	$ 84,949	$ 78,627	$ 297,561	$ 234,816	$ 1,105,822
General and administrative	206,449	249,562	782,731	747,808	3,941,523
	291,398	328,189	1,080,292	982,624	5,047,345
Non-employee consultant stock option grants:					
Research and development	5,812	3,896	10,134	85,265	126,170
General and administrative	464	4,351	11,039	92,022	286,120
	6,276	8,247	21,173	177,287	412,290
Total stock-based compensation	$ 297,674	$ 336,436	$ 1,101,465	$ 1,159,911	$ 5,459,635

During the year ended December 31, 2012, the Company granted options to purchase 167,550 shares of common stock pursuant to performance-based awards to its chief executive officer. No compensation expense was recognized related to the performance-based awards as the award was forfeited in January 2013 when the milestones were not met.

The following table summarizes weighted-average values and assumptions used for options granted to employees, directors and consultants in the periods indicated:

	Three Months Ended September 30, 2013	Nine Months Ended September 30, 2013	Three and Nine Months Ended September 30, 2012
Volatility	109 %	109 %	115 %
Risk-free interest rate	1.82 %	0.915% - 1.82 %	0.925 %
Expected life (years)	6.0	6.0	6.0
Dividend	0 %	0 %	0 %
Weighted-average exercise price	$ 0.43	$ 0.47	$ 1.00
Weighted-average grant-date fair value	$ 0.36	$ 0.39	$ 0.85

The Company granted 140,000 and 24,000 stock options during the three months ended September 30, 2013 and 2012, respectively, and granted 160,000 and 24,000 in the nine months ended September 30, 2013 and 2012, respectively, under the Company's 2006 Stock Incentive Plan. All grants were equal to the market value of the Company's common stock on the date of grant.

Stock Option Activity

A summary of stock option activity under stock option plans is as follows:

	Number of Shares Issuable Upon Exercise of Outstanding Options	Weighted Average Exercise Price	Weighted Average Remaining Contracted Term in Years	Aggregate Intrinsic Value
Outstanding at December 31, 2012	6,439,188	$ 1.52		
Granted	160,000	$ 0.47		
Forfeited	(338,386)	$ 0.81		
Expired	(156,135)	$ 2.47		
Outstanding at September 30, 2013	6,104,667	$ 1.51		
Vested, September 30, 2013	3,674,390	$ 1.96	7.95	$ —
Unvested, September 30, 2013	2,430,277	$ 0.83	8.67	$ —
Exercisable at September 30, 2013	3,674,390	$ 1.96	7.95	$ —

The aggregate intrinsic value of options outstanding is calculated based on the positive difference between the estimated per-share fair value of common stock at the end of the respective period and the exercise price of the underlying options. There have been no option exercises to date. Shares of common stock issued upon the exercise of options are from authorized but unissued shares.

As of September 30, 2013, there was $1,531,476 of total unrecognized compensation cost related to unvested stock-based compensation arrangements. Of this total amount, the Company expects to recognize $861,519, $476,130, $192,760 and $1,067 during 2013, 2014, 2015 and 2016, respectively. The Company expects 2,430,277 in unvested options to vest in the future. The weighted-average grant-date fair value of vested and unvested options outstanding at September 30, 2013 was $0.93 per share and $0.69 per share, respectively.

5. INCOME TAXES

The Company accounts for income taxes in accordance with the liability method of accounting. Deferred tax assets or liabilities are computed based on the difference between the financial-statement and income-tax basis of assets and liabilities, and net operating loss carryforwards, using the enacted tax rates. Deferred income tax expense or benefit is based on changes in the asset or liability from period to period. The Company did not record a provision or benefit for federal, state or foreign income taxes for the three and nine months ended September 30, 2013 or 2012 because the Company has experienced losses on a tax basis since inception. Because of the limited operating history, continuing losses and uncertainty associated with the utilization of the NOLs in the future, management has provided a full allowance against the value of its gross deferred tax asset.

The Company also accounts for the uncertainty in income taxes related to the recognition and measurement of a tax position taken or expected to be taken in an income tax return. The Company follows the applicable accounting guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition related to the uncertainty in income tax positions. No uncertain tax positions have been identified.

6. NET LOSS PER SHARE

Basic net loss per share is computed by dividing net loss by the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share is computed by dividing net loss, as adjusted, by the sum of the weighted average number of shares of common stock and the dilutive potential common stock equivalents then outstanding. Potential common stock equivalents consist of stock options and warrants. Since there is a net loss attributable to common stockholders for the three and nine months ended September 30, 2013 and 2012, the inclusion of common stock equivalents in the computation for those periods would be antidilutive. Accordingly, basic and diluted net loss per share is the same for all periods presented.

The following potentially dilutive securities have been excluded from the computation of diluted net loss per share since their inclusion would be antidilutive:

	Three Months Ended September 30,		Nine Months Ended September 30,		Cumulative Development-Stage Period from November 7, 2002 (inception) through September 30,
	2013	2012	2013	2012	2013
Warrants	36,782,459	23,767,459	36,782,459	23,767,459	36,782,459
Stock options	6,104,667	4,675,754	6,104,667	4,675,754	6,104,667

7. CONTINGENCIES

Litigation

The Company is party to the following legal matter.

BAM Dispute

From its inception through 2010, Novelos was primarily engaged in the development of certain oxidized glutathione-based compounds for application as therapies for disease, particularly cancer. These compounds were originally developed in Russia and in June 2000, Novelos acquired commercial rights from the Russian company ("ZAO BAM") which owned the compounds and related Russian patents. In April 2005, Novelos acquired worldwide rights to the compounds (except for the Russian Federation) in connection with undertaking extensive development activities in an attempt to secure US Food and Drug Administration approval of the compounds as therapies. These development activities culminated in early 2010 in an unsuccessful Phase 3 clinical trial of an oxidized glutathione compound (NOV-002) as a therapy for non-small cell lung cancer. After the disclosure of the negative outcome of the Phase 3 clinical trial in 2010, ZAO BAM claimed that Novelos modified the chemical composition of NOV-002 without prior notice to or approval from ZAO BAM, constituting a material breach of the June 2000 technology and assignment agreement. In September 2010, Novelos filed a complaint in Massachusetts Superior Court seeking a declaratory judgment by the court that the June 2000 agreement has been entirely superseded by the April 2005 agreement and that the obligations of the June 2000 agreement have been performed and fully satisfied. ZAO BAM answered the complaint and alleged counterclaims. In August 2011, Novelos filed a motion for judgment on the pleadings as to the declaratory judgment count and all counts of ZAO BAM's amended counterclaims. On October 17, 2011, the court ruled in favor of Novelos on each of the declaratory judgment claims and dismissed all counts of ZAO BAM's counterclaim. Judgment in favor of Novelos was entered on October 20, 2011. On November 14, 2011 ZAO BAM filed a notice of appeal. On November 1, 2013, ZAO BAM's appeal was docketed with the Massachusetts Appeals Court. ZAO BAM's appellate brief must be served by December 11, 2013. Novelos' appellate brief will be due 30 days after that service.

We do not anticipate that this litigation matter will have a material adverse effect on the Company's future financial position, results of operations or cash flows.

8. RELATED PARTY TRANSACTIONS

Jamey Weichert, the Company's Chief Scientific Officer and principal founder of Cellectar, and a director and shareholder of the Company, is a faculty member at the University of Wisconsin-Madison ("UW"). During the three and nine months ended September 30, 2013, the Company made contributions to UW totaling $62,500 and $187,500, respectively for use towards unrestricted research activities. The Company paid $0 and $73,385 to UW for costs associated with clinical trial and other research agreements during the three and nine months ended September 30, 2013. The Company made contributions to UW of $62,500 and $206,500 for use towards unrestricted research activities during the three and nine months ended September 30, 2012, respectively, and paid UW $0 and $144,044 for costs associated with clinical trial agreements during the three and nine months ended September 30, 2012, respectively.

9. COMMITMENTS

Employment Agreement

On July 29, 2013, the Company announced that Harry Palmin, the Company's President and CEO and a Director, would step down from his positions with the Company, in order to pursue other opportunities, upon the naming of his successor.

In connection with this management transition, on July 26, 2013, the employment agreement between the Company and Harry Palmin, President and CEO, was amended to provide for a lump-sum payment of $150,000, equal to six months base salary, to provide for the continuation of benefits for six months following a termination without cause prior to March 31, 2014, to provide for the acceleration of vesting of all of Mr. Palmin's unvested options in the event of a termination without cause or a resignation for good reason, to extend the exercise period of Mr. Palmin's options to a period of 18 months following termination, and to provide for the payment of $150,000 to Mr. Palmin upon the completion of certain milestones prior to September 30, 2013.

On October 4, 2013, the employment of Mr. Palmin was terminated without cause and Mr. Palmin resigned as a Class III Director of the Company (see Note 10).

Entry into Retention Agreements

Also in connection with the management transition, on July 26, 2013, the Company entered into retention agreements with two executive officers. The retention agreements provide for the payment of a retention bonus equal to thirty percent of the executive's salary if the executives remain employed with the Company as of December 31, 2013. Furthermore, the agreements provide for a lump-sum payment of six months base salary and continuation of benefits for six months following a termination without cause or resignation with good reason on or before June 30, 2014. Upon such a termination, all unvested options held by the executives shall be credited with an additional six months vesting and all vested options held by the executives shall be exercisable for eighteen months following termination. A total of $392,000 may become payable to the executives pursuant to the retention agreements.

10. SUBSEQUENT EVENTS

Management Transition

On October 4, 2013, the employment of Mr. Palmin was terminated without cause in accordance with his employment agreement, as amended, and Mr. Palmin resigned as a Class III Director of the Company. In connection with Mr. Palmin's termination, he received payments totaling $250,000 and will receive continuation of health and dental benefits for six months following the termination date. All of Mr. Palmin's unvested options were vested on his termination date and the exercise period was extended for an additional 18 months until April 4, 2015. In connection with this modification of options, the Company anticipates recognizing incremental stock-based compensation expense of approximately $105,000 and will recognize the remaining unrecognized stock-based compensation expense of approximately $561,000 related to these options in the fourth quarter of 2013.

On October 4, 2013, Dr. Simon Pedder was appointed as Acting Chief Executive Officer and elected as a Class III Director replacing Mr. Palmin. The Company entered into a consulting agreement with Dr. Pedder for the period from October 4, 2013 through March 31, 2014 under which the Company will pay Dr. Pedder a consulting fee of $30,000 per month, granted Dr. Pedder a non-qualified stock option to purchase up to 3,360,000 shares of common stock having an exercise price of $0.33 per share and vesting equally over four years and granted a non-qualified stock option to purchase up to 1,925,573 shares of common stock having an exercise price of $0.75 per share, exercisable as shares of the Company's common stock are issued following the exercise of outstanding warrants to purchase up to 36,585,895 shares of the Company's common stock, in the ratio of one option share for each 19 shares issued upon warrant exercise. Both non-qualified stock options expire on October 4, 2023 unless earlier exercised or terminated.

The Company also entered into an employment agreement with Dr. Pedder effective as of April 1, 2014, pursuant to which Dr. Pedder will serve as President and Chief Executive Officer of the Company at a base salary rate of $350,000 per year beginning April 1, 2014. Dr. Pedder will also receive a monthly reimbursement for temporary living costs not to exceed $4,000 per month during the first 6 months of employment.

Waiver Agreement

On October 9, 2013, the Company entered into a Waiver Agreement with Renova Assets Ltd. ("Renova"), under which Renova has waived the obligations of the Company to use the proceeds from the sale of securities under the Securities Purchase Agreement dated November 1, 2012 for the construction of additional manufacturing facilities for its LIGHT compound. The Company has agreed to use the proceeds for the development of its LIGHT compound and to invite two representatives, designated by Renova, to act as board observers through December 31, 2014. The Company paid $40,000 to Renova as reimbursement for administrative and other costs in connection with the Waiver Agreement. As a result of the designation of the remaining proceeds to fund ordinary operating activities rather than the previously contemplated construction project, the Company has reclassified $1,878,232 from restricted cash to cash and cash equivalents on the accompanying balance sheet as of September 30, 2013.

Restructuring of Board of Directors

On November 7, 2013, Michael F. Tweedle resigned from the Company's board of directors and from his committee appointments. Paul L. Berns was appointed as a Class II director to fill the vacancy created by Dr. Tweedle's resignation. In connection with his appointment, Mr. Berns received an option to purchase 100,000 shares of the Company's common stock at $0.39 per share, vesting in equal quarterly installments over three years and expiring on November 7, 2023. Effective November 8, 2013, Thomas Rockwell Mackie, James S. Manuso, John E. Niederhuber and Howard M. Schneider resigned from the Company's board of directors and from their respective committee appointments. Also on November 8, 2013, Stephen A. Hill and John Neis were redesignated and elected as Class I directors and the number of directors was reduced to five from nine. In connection with their resignations, all of the unvested options held by Messrs. Mackie, Manuso, Niederhuber, Schneider and Tweedle were vested and the exercise period was extended to three years from date of resignation. In connection with this modification of options, the Company estimates that an additional $274,000 in stock-based compensation expense will be recognized in the fourth quarter of 2013.

Stockholder Meeting

On November 8, 2013, the Company's board of directors scheduled a special meeting in lieu of annual meeting of stockholders for December 12, 2013 at 2:00 P.M. central time (the "Special Meeting") at the Company's offices at 3301 Agriculture Drive, Madison, Wisconsin 53716. Stockholders of record at the close of business on November 8, 2013 are entitled to receive notice of, and to vote at, the Special Meeting and any adjournment of the meeting. The agenda for the Special Meeting consists of the election of a Class II director (Mr. Berns having been nominated for re-election), the approval of an amendment of the Company's 2006 Stock Incentive Plan increasing the number of shares authorized for issuance thereunder to 14,000,000 and the ratification of the appointment of Grant Thornton LLP as the Company's independent registered accounting firm for 2013.

Relocation of the Company's Principal Executive Offices

On November 8, 2013, the Company's board of directors voted to relocate the Company's principal executive offices from Newton, Massachusetts to its corporate headquarters in Madison, Wisconsin. In connection with the relocation, and in order to consolidate operations and contain costs, the Newton office will be closed and the roles and responsibilities of the three employees located in Newton, Massachusetts, including Chris Pazoles, Vice President of Research and Development and Joanne Protano, Vice President of Finance, Chief Financial Officer and Treasurer, will be transitioned to Madison, Wisconsin by the end of April 2014. The Company estimates that approximately $330,000 in cash payments will be incurred for exit costs, consisting principally of severance. In addition, the Company will also record incremental stock-based compensation associated with the modification of options upon the termination of employees. The amount of such incremental stock-based compensation can't be estimated at this time.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

This quarterly report on Form 10-Q includes forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act. For this purpose, any statements contained herein regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management, other than statements of historical facts, are forward-looking statements. The words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements. There are a number of important factors that could cause actual results or events to differ materially from those disclosed in the forward-looking statements we make. These important factors include our significant accounting estimates, such as those for amounts due to clinical research organizations, and clinical investigators and the risk factors set forth below under the caption "Risk Factors". Although we may elect to update forward-looking statements in the future, we specifically disclaim any obligation to do so, even if our estimates change, and readers should not rely on those forward-looking statements as representing our views as of any date subsequent to the date of this quarterly report.

Overview

We are a pharmaceutical company developing novel drugs for the treatment and diagnosis of cancer. Our cancer-targeted compounds are selectively taken up and retained in cancer cells, including cancer stem cells, versus normal cells. I-124-CLR1404 (LIGHT) is a small-molecule, broad-spectrum, cancer-targeted positron emission tomography (PET) imaging agent. LIGHT Phase 1-2 clinical trials are ongoing across 11 solid tumor indications. I-131-CLR1404 (HOT) is a small-molecule, broad-spectrum, cancer-targeted molecular radiotherapeutic that delivers cytotoxic radiation directly and selectively to cancer cells and cancer stem cells. HOT Phase 1b dose-escalation trial is ongoing in patients with advanced solid tumors. CLR1502 (GLOW2) is a preclinical, cancer-targeted, non-radioactive optical imaging agent for intraoperative tumor margin illumination and non-invasive tumor imaging. Together, we believe our compounds are able to "find, treat and follow" cancer anywhere in the body in a novel, effective and highly selective way.

LIGHT is a small-molecule, broad-spectrum, cancer-targeted imaging agent that we believe has the potential to be the first of its kind for selective detection of tumors and metastases in a broad range of cancers. Chemically, LIGHT is comprised of our proprietary phospholipid ether analogs (PLE), 18-(p-[I-124]iodophenyl) octadecyl phosphocholine, acting as a cancer-targeted delivery and retention vehicle, covalently labeled with iodine-124, a PET imaging radioisotope with a radiation half-life of four days. PET imaging used in conjunction with CT scanning has now become the imaging method of choice in much of oncology. In preclinical studies to date, LIGHT selectively illuminated malignant tumors in 52 of 54 animal models of cancer, demonstrating broad-spectrum, cancer-selective uptake and retention. A company-sponsored, multi-site Phase 2 PET imaging trial of LIGHT vs. MRI in recurrent glioma patients has been approved by the FDA, and patient enrollment is expected to begin by the end of the fourth quarter of 2013. Investigator-sponsored Phase 1-2 trials of LIGHT as a PET imaging agent are also ongoing across 11 solid tumor indications. Initial positive imaging results have been established in patients with lung and brain cancers. These human trials, if successful, would likely provide proof-of-concept for LIGHT as a PET imaging agent with the potential to supplant the current "gold standard" agents, 18F-fluoro-deoxyglucose (FDG) for various solid tumors or MRI in the case of brain cancers, due to what we believe to be LIGHT's superior cancer-specificity versus FDG and MRI, and more favorable logistics of clinical use versus FDG. As a chemically identical biomarker for HOT, we believe that LIGHT tumor uptake data could also accelerate clinical development of HOT by guiding selection of indications for HOT Phase 2 trials and potentially be used in such trials to identify suitable patients and assess therapeutic efficacy.

HOT is a small-molecule, broad-spectrum, cancer-targeted molecular radiotherapeutic that we believe has the potential to be the first therapeutic agent to use PLEs to target cancer cells. HOT is comprised of a proprietary PLE, acting as a cancer-targeted delivery and retention vehicle, covalently labeled with iodine-131, a cytotoxic (cell-killing) radioisotope that is already in common use to treat thyroid and other cancer types. The ongoing Phase 1b dose-escalation trial is aimed at determining the Maximum Tolerated Dose of HOT. The Phase 1b trial data will be instrumental in evaluating a range of potential Phase 2 trial designs for HOT, including incorporation of multiple dosing as well as combination of HOT with external beam radiotherapy or with radiosensitizing therapeutics. Selection of indications for Phase 2, as well as aspects of trial design, will be guided by ongoing PET imaging trials in cancer patients with LIGHT, a chemically identical biomarker for HOT. Preclinical experiments in more than a dozen *in vivo* (in animals) tumor models have demonstrated selective killing of cancer cells along with a benign safety profile.

GLOW2 is a small-molecule, broad-spectrum, cancer-targeted, non-radioactive optical imaging agent that we believe has the potential to be the first of its kind for intraoperative tumor margin illumination and non-invasive tumor imaging. GLOW2 is comprised of a proprietary PLE, acting as a cancer-targeted delivery and retention vehicle, covalently attached to a near-infrared (800nm) fluorophore. According to the American Cancer Society (2011), most cancer patients will have some type of surgery, and Cancer Facts and Figures indicated that approximately 1.3 million cancer patients were diagnosed with solid tumors in the U.S. alone in 2011. GLOW2 may facilitate and enable diagnostic, staging, debulking and curative cancer surgeries, intraoperatively in real time (i.e., during the actual surgical procedure) by defining tumor margins and regional lymph node involvement, resulting in more accurate tumor resectioning and improved outcome and prognosis. In this context, GLOW2 would effectively act as an adjunct therapeutic agent. In preclinical *in vivo* (in animals) tumor models, non-invasive optical imaging showed pronounced accumulation of GLOW2 in tumors versus normal organs and tissues in addition to successfully delineating tumor margins during tumor resection. Thus, GLOW2 may also have utility for non-invasive imaging of relatively superficial tumor types in man (e.g., melanoma, head & neck, colon, esophageal). We expect to submit an IND for GLOW2 by the end of the first quarter of 2014 and begin clinical trials shortly thereafter.

Results of Operations

Research and development expense. Research and development expense consists of costs incurred in identifying, developing and testing, and manufacturing product candidates, which primarily include salaries and related expenses for personnel, costs of our research and manufacturing facility, cost of manufacturing materials, fees paid to professional service providers for independent monitoring and analysis of our clinical trials, and costs to secure intellectual property. The Company analyzes its research and development expenses based on four categories as follows: clinical projects, preclinical projects, chemistry and manufacturing costs, and general fixed and overhead costs that are not allocated to the functional project costs, including personnel costs, facility costs, related overhead costs and patent costs.

General and administrative expense. General and administrative expense consists primarily of salaries and other related costs for personnel in executive, finance and administrative functions. Other costs include insurance, costs for public company reporting and investor relations, directors' fees and professional fees for legal and accounting services.

Three Months Ended September 30, 2013 and 2012

Research and Development. Research and development expense for the three months ended September 30, 2013 was approximately $2,067,000 (comprised of $179,000 in clinical project costs, $720,000 of preclinical project costs, $63,000 of manufacturing and related costs and $1,105,000 in general unallocated research and development costs) compared to approximately $1,253,000 (comprised of $176,000 in clinical project costs, $90,000 in preclinical project costs, $97,000 in manufacturing and related costs, and $890,000 in general unallocated research and development costs) for the three months ended September 30, 2012. The $814,000, or 65%, increase in research and development expense resulted primarily from a $630,000 increase in preclinical costs and $215,000 increase in general unallocated research and development costs. Clinical costs and manufacturing and related costs were consistent on a comparative basis. The $630,000 increase in preclinical costs was related to contract research costs to support IND-enabling activities related to GLOW2. The $215,000 increase in general unallocated research and development costs for the three months ended September 30, 2013 compared to the same period in 2012 was attributable to an increase in payroll and related costs for new employees to support our research efforts.

General and Administrative. General and administrative expense for the three months ended September 30, 2013 was approximately $844,000, representing an increase of about $43,000, or 5%, compared to approximately $801,000 for the three months ended September 30, 2012. However, in the third quarter of 2012, a $125,000 deductible reimbursement was received from our insurance carrier following the dismissal with prejudice of a securities litigation lawsuit and the reimbursement was recorded as a reduction in legal expenses during the three months ended September 30, 2012. Excluding this reimbursement in 2012, legal expenses were about the same in both periods. Higher stock-based compensation and investor relations costs in the three months ended September 30, 2012 versus the same period in 2013 were partially offset by the deductible reimbursement.

Gain (Loss) on Derivative Warrants. We recorded a gain on derivative warrants of approximately $1,597,372 in the three months ended September 30, 2013 and a gain on derivative warrants of approximately $4,000 in the three months ended September 30, 2012. These amounts represent the change in fair value (resulting primarily from a decline in the Company's stock price), during the respective period, of outstanding warrants which contain "down-round" anti-dilution provisions whereby the number of shares for which the warrants are exercisable and/or the exercise price of the warrants is subject to change in the event of certain issuances of stock at prices below the then-effective exercise prices of the warrants.

Interest expense, net. Interest expense, net, for the three months ended September 30, 2013 and 2012 consists of interest related to the Company's outstanding debt owed to the Wisconsin Department of Commerce and was consistent on a comparative basis.

Deemed Dividend on Warrants. During the three months ended September 30, 2012, we amended the terms of warrants to purchase 5,255,000 shares of our common stock to extend the expiration date for the exercise of such warrants from September 11, 2012 until October 11, 2012. These warrants had been issued in connection with the June 2012 Offering, had an expiration date of September 11, 2012 and were exercisable at a price of $1.00 per share. The modification of the expiration date of the warrants resulted in a deemed dividend to warrant holders of approximately $543,000 which was calculated as the difference between the fair value of the warrants immediately before and after the modification using the Black-Scholes option pricing model. The deemed dividends have been included in the calculation of net loss attributable to common stockholders of approximately $2,596,000, or $0.06 per share, for the three months ended September 30, 2012. The deemed dividends are excluded from our net loss (from operating activities) of approximately $2,052,000, or $0.05 per share, for the three months ended September 30, 2012.

No deemed dividend was recorded in the three months ended September 30, 2013.

Nine Months Ended September 30, 2013 and 2012

Research and Development. Research and development expense for the nine months ended September 30, 2013 was approximately $5,306,000 (comprised of $522,000 in clinical project costs, $937,000 of preclinical project costs, $527,000 of manufacturing and related costs and $3,320,000 in general unallocated research and development costs) compared to approximately $3,896,000 (comprised of $596,000 in clinical project costs, $252,000 of preclinical project costs, $330,000 of chemistry, manufacturing and related costs and $2,718,000 in general unallocated research and development costs) for the same period in 2012. The approximately $1,410,000, or 36%, increase in research and development expense occurred in several categories. The $685,000 increase in preclinical projects was related to contract research costs to support IND-enabling activities related to GLOW2. Manufacturing costs increased $197,000 primarily related to costs associated with the production of clinical trial materials for the ongoing Phase 1-2 trials for LIGHT and the Phase 1b trial for HOT, as well as costs associated with the evaluation of contract manufacturing alternatives for LIGHT. General unallocated research and development costs increased approximately $602,000 primarily as a result of increases in payroll and related costs for additional headcount to support research activities and approximately $70,000 related to costs incurred in connection with the evaluation of the LIGHT manufacturing build-out. These increases were offset by a $74,000 decrease in clinical project costs which was primarily the result of a reduction in trial start-up costs in the nine months ended September 30, 2013 versus the same period in 2012.

General and Administrative. General and administrative expense for the nine months ended September 30, 2013 was approximately $3,039,000, representing an increase of about $343,000, or 13%, compared to approximately $2,696,000 for the same period of 2012. This increase is the result of an increase in consulting expense in 2013 and a $125,000 decline in legal expense in 2012 reflecting a reimbursement of a deductible amount made by our insurance carrier during the third quarter of 2012 following the dismissal with prejudice of a securities litigation lawsuit. The reimbursement was recorded as a reduction in legal expense during the nine months ended September 30, 2012. Excluding this reimbursement, legal expenses were about the same in both periods.

Gain (Loss) on Derivative Warrants. We recorded a gain on derivative warrants of $2,263,756 in the nine months ended September 30, 2013 and a loss on derivative warrants of approximately $42,000 in the nine months ended September 30, 2012. These amounts represent the change in fair value (resulting primarily from a decline in the Company's stock price), during the respective period, of outstanding warrants which contain "down-round" anti-dilution provisions whereby the number of shares for which the warrants are exercisable and/or the exercise price of the warrants is subject to change in the event of certain issuances of stock at prices below the then-effective exercise prices of the warrants.

Loss on Issuance of Derivative Warrants. Loss on derivative warrants of approximately $745,000 was recorded in the nine months ended September 30, 2013 and represents the amount by which the initial fair value of warrants issued in connection with the February Offering (Note 3) exceeded the net proceeds received from the offering. These warrants are classified as derivative liabilities because they include "down-round" anti-dilution protection. We had no such expense in the nine months ended September 30, 2012.

Interest expense, net. Interest expense, net, for the nine months ended September 30, 2013 and 2012 consists of interest related to the Company's outstanding debt owed to the Wisconsin Department of Commerce and was consistent on a comparative basis.

Deemed Dividend on Warrants. During the nine months ended September 30, 2012, we amended the terms of warrants to purchase 5,255,000 shares of our common stock to extend the expiration date for the exercise of such warrants from September 11, 2012 until October 11, 2012. These warrants had been issued in connection with the June 2012 Offering, had an expiration date of September 11, 2012 and were exercisable at a price of $1.00 per share. The modification of the expiration date of the warrants resulted in a deemed dividend to warrant holders of approximately $543,000 which was calculated as the difference between the fair value of the warrants immediately before and after the modification using the Black-Scholes option pricing model. The deemed dividends have been included in the calculation of net loss attributable to common stockholders of approximately $7,183,000, or $0.18 per share, for the nine months ended September 30, 2012. The deemed dividends are excluded from our net loss (from operating activities) of approximately $6,640,000, or $0.17 per share, for the nine months ended September 30, 2012.

No deemed dividend was recorded in the nine months ended September 30, 2013.

Liquidity and Capital Resources

We have financed our operations since inception primarily through the sale of equity securities and securities convertible into equity securities. To date, Cellectar and Novelos have raised capital aggregating approximately $126 million. Novelos has raised capital aggregating approximately $99 million. As of September 30, 2013, we had approximately $5,110,000 in cash and cash equivalents.

During the nine months ended September 30, 2013, approximately $6,476,000 in cash was used in operations. During this period we reported a net loss of approximately $6,834,000. However, this loss included the following non-cash items: an approximately $745,000 loss on the issuance of derivative warrants, an approximately $2,264,000 gain on the revaluation of derivative warrants, approximately $1,101,000 in stock-based compensation expense, approximately $326,000 in depreciation and amortization expense and an approximately $5,000 loss on the disposal of fixed assets. After adjustment for these non-cash items, the Company utilized approximately $2,000 in cash for the prepayment of certain items and the increase in accounts payable and accrued liabilities provided cash of approximately $440,000. Other changes in working capital provided cash of $7,000.

During the nine months ended September 30, 2013, we purchased approximately $135,000 in fixed assets and reclassified approximately $2,000,000 of restricted cash to operating cash related to the November 2012 private placement. This cash had initially been designated for the construction of an in-house manufacturing facility but is now available for use in operations for the development of LIGHT.

In February 2013, we completed a public offering of our common stock and warrants for net proceeds of approximately $4,975,000.

The accompanying consolidated financial statements have been prepared on a basis that assumes that we will continue as a going concern and that contemplates the continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the normal course of business. We have incurred losses since inception in devoting substantially all of our efforts toward research and development and have an accumulated deficit of approximately $47,111,000 at September 30, 2013. During the nine months ended September 30, 2013, we generated a net loss of approximately $6,834,000 and we expect that we will continue to generate operating losses for the foreseeable future. At September 30, 2013, our consolidated cash balance was approximately $5,110,000. We believe this cash balance is adequate to fund operations through February 2014. Our ability to execute our operating plan beyond that time depends on our ability to obtain additional funding via the sale of equity and/or debt securities, a strategic transaction or otherwise. We have, in the past, successfully completed multiple rounds of financings, but, due to market conditions and other factors, including our development stage, the proceeds we have been able to secure have been less than the amounts we sought to obtain. We plan to actively pursue all available financing alternatives; however, there can be no assurance that we will obtain the necessary funding. Other than the uncertainties regarding our ability to obtain additional funding, there are currently no known trends, demands, commitments, events or uncertainties that are likely to materially affect our liquidity.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Acting Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2013. Disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, are controls and procedures that are designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to our management, including our principal executive and financial officers, to allow timely decisions regarding required disclosures.

Based on the evaluation of our disclosure controls and procedures as of September 30, 2013 our Acting Chief Executive Officer and our Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were operating effectively.

Change in Internal Control over Financial Reporting

The Company's management, in connection with its evaluation of internal controls (with the participation of the Company's principal executive officer and principal financial officer), did not identify any change in internal control over the financial reporting process that occurred during the Company's third quarter of 2013 that would have materially affected, or would have been reasonably likely to materially affect, the Company's internal control over financial reporting.

Limitations on Effectiveness of Controls

In designing and evaluating our disclosure controls and procedures, our management recognizes that any system of controls, however well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system are met. In addition, the design of any control system is based in part on certain assumptions about the likelihood of future events. Because of these and other inherent limitations of control systems, there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions, regardless of how remote.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

From its inception through 2010, Novelos was primarily engaged in the development of certain oxidized glutathione-based compounds for application as therapies for disease, particularly cancer. These compounds were originally developed in Russia and in June 2000, Novelos acquired commercial rights from the Russian company ("ZAO BAM") which owned the compounds and related Russian patents. In April 2005, Novelos acquired worldwide rights to the compounds (except for the Russian Federation) in connection with undertaking extensive development activities in an attempt to secure US Food and Drug Administration approval of the compounds as therapies. These development activities culminated in early 2010 in an unsuccessful Phase 3 clinical trial of an oxidized glutathione compound (NOV-002) as a therapy for non-small cell lung cancer. After the disclosure of the negative outcome of the Phase 3 clinical trial in 2010, ZAO BAM claimed that Novelos modified the chemical composition of NOV-002 without prior notice to or approval from ZAO BAM, constituting a material breach of the June 2000 technology and assignment agreement. In September 2010, Novelos filed a complaint in Massachusetts Superior Court seeking a declaratory judgment by the court that the June 2000 agreement has been entirely superseded by the April 2005 agreement and that the obligations of the June 2000 agreement have been performed and fully satisfied. ZAO BAM answered the complaint and alleged counterclaims. In August 2011, Novelos filed a motion for judgment on the pleadings as to the declaratory judgment count and all counts of ZAO BAM's amended counterclaims. On October 17, 2011, the court ruled in favor of Novelos on each of the declaratory judgment claims and dismissed all counts of ZAO BAM's counterclaim. Judgment in favor of Novelos was entered on October 20, 2011. On November 14, 2011 ZAO BAM filed a notice of appeal. On November 1, 2013, ZAO BAM's appeal was docketed with the Massachusetts Appeals Court. ZAO BAM's appellate brief must be served by December 11, 2013 and Novelos' appellate brief will be due 30 days after that service.

Item 1A. Risk Factors

We will require additional capital in order to continue our operations, and may have difficulty raising additional capital.

We expect that we will continue to generate significant operating losses for the foreseeable future. At September 30, 2013, our consolidated cash balance was approximately $5,110,000. We believe our cash balance at September 30, 2013 is adequate to fund operations through February 2014. We will require additional funds to conduct research and development, establish and conduct clinical and preclinical trials, establish commercial-scale manufacturing arrangements and provide for the marketing and distribution of our products. Our ability to execute our operating plan depends on our ability to obtain additional funding via the sale of equity and/or debt securities, a strategic transaction or otherwise. We plan to actively pursue financing alternatives. However, there can be no assurance that we will obtain the necessary funding in the amounts we seek or that it will be available on a timely basis or upon terms acceptable to us. If we obtain capital by issuing debt or preferred stock, the holders of such securities would likely obtain rights that are superior to those of holders of our common stock.

Our capital requirements and our ability to meet them depend on many factors, including:

- the number of potential products and technologies in development;
- continued progress and cost of our research and development programs;
- progress with preclinical studies and clinical trials;
- the time and costs involved in obtaining regulatory clearance;
- costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims;
- costs of developing sales, marketing and distribution channels and our ability to sell our drugs;
- costs involved in establishing manufacturing capabilities for clinical trial and commercial quantities of our drugs;
- competing technological and market developments;
- market acceptance of our products;
- costs for recruiting and retaining management, employees and consultants;
- costs for educating physicians regarding the application and use of our products;

- whether or not we obtain listing on a national exchange and, if not, our prospects for obtaining such listing;
- uncertainty and economic instability resulting from terrorist acts and other acts of violence or war; and
- the condition of capital markets and the economy generally, both in the U.S. and globally.

We may consume available resources more rapidly than currently anticipated, resulting in the need for additional funding sooner than expected. We may seek to raise any necessary additional funds through the issuance of warrants, equity or debt financings or executing collaborative arrangements with corporate partners or other sources, which may be dilutive to existing stockholders or have a material effect on our current or future business prospects. In addition, in the event that additional funds are obtained through arrangements with collaborative partners or other sources, we may have to relinquish economic and/or proprietary rights to some of our technologies or products under development that we would otherwise seek to develop or commercialize by ourselves. If we cannot secure adequate financing when needed, we may be required to delay, scale back or eliminate one or more of our research and development programs or to enter into license or other arrangements with third parties to commercialize products or technologies that we would otherwise seek to develop ourselves and commercialize ourselves. In such event, our business, prospects, financial condition, and results of operations may be adversely affected.

We are a development-stage company with a history of losses and can provide no assurance of our future operating results.

We are a development-stage company and have incurred net losses and negative cash flows since inception. We currently have no product revenues, and may not succeed in developing or commercializing any products that will generate product or licensing revenues. We do not expect to have any products on the market for several years. Our primary activity to date has been research and development. In addition, development of our product candidates requires a process of preclinical and clinical testing, during which our product candidates could fail. We may not be able to enter into agreements with one or more companies experienced in the manufacturing and marketing of therapeutic drugs and, to the extent that we are unable to do so, we will not be able to market our product candidates. Whether we achieve profitability or not will depend on our success in developing, manufacturing, and marketing our product candidates. We have experienced net losses and negative cash flows from operating activities since inception and we expect such losses and negative cash flows to continue for the foreseeable future. As of September 30, 2013, we had working capital of $865,675 and stockholders' equity of $4,426,291. For the period from Cellectar's inception in November 2002 until the business combination with Novelos on April 8, 2011, and thereafter through September 30, 2013, Cellectar (and, from and after the business combination, Novelos) incurred aggregated net losses of $47,111,059. The net loss for the nine months ended September 30, 2013 was $6,833,659. We may never achieve profitability.

We depend on key personnel who may terminate their employment with us at any time, and our success will depend on our ability to hire additional qualified personnel.

Our success will depend to a significant degree on the continued services of our executive officers. There can be no assurance that these individuals will continue to provide services to us. In October 2013, we appointed Dr. Simon Pedder Acting Chief Executive Officer and elected Dr. Pedder as a Class III director, succeeding Harry Palmin, our chief executive officer since 2005 and a Class III director. In November 2013, the board of directors was restructured with the resignation of 5 directors and the appointment of one new director. The restructured board of directors has voted to relocate our principal executive offices from Newton, Massachusetts to Madison, Wisconsin and to transition the roles and responsibilities of Chris Pazoles, our Vice President of Research and Development since 2005 and Joanne Protano, our Vice President of Finance, Chief Financial Officer and Treasurer since 2007, to Madison, Wisconsin. The board also voted to appoint Kathryn McNeil as our Vice President Investor Relations, Public Relations and Corporate Communications and appointed J. Patrick Genn as our Vice President of Business Development. Mr. Genn previously held the position of Vice President of Investor Relations. In addition, Kimberly Hawkins, our Vice President of Clinical Development since 2010, resigned from her position in August 2013. We have appointed Dr. Kevin Kozak, a consultant, as our Chief Medical Officer. As Dr. Pedder and the restructured board of directors continue to develop and implement a revised strategic focus, there could be additional executive and director changes. The successful transitions of these leadership roles will be critical to the continued progress of the Company. In addition, our success may depend on our ability to attract and retain other highly skilled personnel. We may be unable to recruit such personnel on a timely basis, if at all. Our management and other employees may voluntarily terminate their employment with us at any time. The loss of services of key personnel, or the inability to attract and retain additional qualified personnel, could result in delays in development or approval of our products, loss of sales and diversion of management resources. To date, we have not experienced difficulties in attracting and retaining highly qualified personnel, but there can be no assurance we will be successful in doing so in the future.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosure

None

Item 5. Other Information

Restructuring of Board of Directors

On November 7, 2013, Michael F. Tweedle resigned as a Class II director and from his committee appointments. Paul L.Berns was appointed as a Class II director to fill the vacancy created by Dr. Tweedle's resignation. In connection with his appointment, Mr. Berns received an option to purchase 100,000 shares of our common stock at $0.39 per share, vesting in equal quarterly installments over three years and expiring on November 7, 2023. Effective November 8, 2013, Thomas Rockwell Mackie, James S. Manuso and John E. Niederhuber (all Class I directors) and Howard M. Schneider (a Class III director) resigned from our board of directors and their respective committee appointments. Stephen A. Hill and John Neis were designated and elected as Class I directors to fill the vacancies created in that Class and the number of directors of the Company was reduced from nine to five, consisting of two in each of Class I and Class III and one in Class II. In connection with their resignations, all of the unvested options held by Messrs. Mackie, Manuso, Niederhuber, Schneider and Tweedle were vested and the exercise period was extended to three years from date of resignation. In connection with this modification of options, we estimate that $274,000 in stock-based compensation expense will be recognized in the fourth quarter of 2013.

Biographical information of Paul L. Berns is as follows:

Mr. Berns, 47, is currently a self-employed consultant to the pharmaceutical industry. Mr. Berns has served as a member of the board of directors of Jazz Pharmaceuticals, Inc. since June 2010. Mr. Berns has been a director of Anacor Pharmaceuticals, Inc. since June 2012 and of XenoPort, Inc. since 2005. From March 2006 to September 2012, Mr. Berns served as President and Chief Executive Officer, and as a member of the Board of Directors of Allos Therapeutics, Inc., a pharmaceutical company acquired by Spectrum Pharmaceuticals, Inc. From July 2005 to March 2006, Mr. Berns was a self-employed consultant to the pharmaceutical industry. From June 2002 to July 2005, Mr. Berns was president, Chief Executive Officer and a director of Bone Care International, Inc., a specialty pharmaceutical company that was acquired by Genzyme Corporation in 2005. From 2001 to 2002, Mr. Berns served as Vice President and General Manager of the Immunology, Oncology and Pain Therapeutics business unit of Abbott Laboratories. From 2000 to 2001, he served as Vice President, Marketing of BASF Pharmaceuticals/Knoll and from 1990 to 2000, Mr. Berns held various positions, including senior management roles, at Bristol-Myers Squibb Company. Mr. Berns received a B.S. in Economics from the University of Wisconsin.

On November 8, 2013, our board of directors appointed the following individuals to serve on the standing committees of the board.

Messrs. Berns, Hill and Neis were appointed to the Audit Committee, Mr. Neis as chairman.

Messrs. Berns, Hill and Neis were appointed to the Compensation Committee, Mr. Hill as chairman.

Mr. Berns, Simon Pedder and Jamey Weichert were appointed to the Nominating and Corporate Governance Committee, Mr. Berns as chairman.

Stockholder Meeting

On November 8, 2013, our board of directors scheduled a special meeting in lieu of annual meeting of stockholders for December 12, 2013 at 2:00 P.M. central time (the "Special Meeting") at our headquarters at 3301 Agriculture Drive, Madison, Wisconsin 53716. Stockholders of record at the close of business on November 8, 2013 are entitled to receive notice of, and to vote at, the Special Meeting and any adjournment of the meeting. The agenda for the Special Meeting consists of the election of a Class II director (Paul Berns having been nominated for re-election), the approval of an amendment of our 2006 Stock Incentive Plan increasing the number of shares authorized for issuance thereunder to 14,000,000 and the ratification of the appointment of Grant Thornton LLP as our independent registered accounting firm for 2013.

Relocation of the Company's Principal Executive Offices

On November 8, 2013, our board of directors voted to relocate our principal executive offices from Newton, Massachusetts to our corporate headquarters in Madison, Wisconsin. In connection with the relocation, and in order to consolidate operations and contain costs, the Newton office will be closed and the roles and responsibilities of the three employees located in Newton, Massachusetts, including Chris Pazoles, Vice President of Research and Development and Joanne Protano, Vice President of Finance, Chief Financial Officer and Treasurer, will be transitioned to Madison, Wisconsin. Dr. Pazoles' employment will be terminated effective November 30, 2013 and in connection with such termination he will receive severance totaling $132,600. All unvested options held by him as of that date will be credited with an additional six months' vesting and shall be exercisable for eighteen months following termination. Ms. Protano will transition her responsibilities by the end of April 2014. We expect to incur approximately $330,000 in cash payments for exit costs, consisting principally of severance. In addition, we will also record incremental stock-based compensation associated with the modification of options upon the termination of employees. The amount of such incremental stock-based compensation can't be estimated at this time.

Changes in Officers

On November 8, 2013, our board appointed Kathryn M. McNeil as our Vice President Investor Relations, Public Relations and Corporate Communications and appointed J. Patrick Genn as our Vice President of Business Development. Mr. Genn had previously held the title of Vice President of Investor Relations.

Item 6. Exhibits

			Incorporation by Reference		
Exhibit No.	**Description**	**Filed with this Form 10-Q**	**Form**	**Filing Date**	**Exhibit No.**
2.1	Agreement and Plan of Merger by and among Novelos Therapeutics, Inc., Cell Acquisition Corp. and Cellectar, Inc. dated April 8, 2011		8-K	April 11, 2011	2.1
3.1	Second Amended and Restated Certificate of Incorporation		8-K	April 11, 2011	3.1
3.2	Amended and Restated By-laws		8-K	June 1, 2011	3.1
4.1	Form of common stock certificate		S-1/A	November 9, 2011	4.1
10.1	Third Amendment to Employment Agreement between the Company and Harry S. Palmin dated July 26, 2013	X			
10.2	Retention Agreement between the Company and Christopher Pazoles dated July 26, 2013	X			
10.3	Retention Agreement between the Company and Joanne M. Protano dated July 26, 2013	X			

10.4	Consulting Agreement between the Company and Simon Pedder dated October 4, 2013	X			
10.5	Employment Agreement between the Company and Simon Pedder dated October 4, 2013	X			
10.6	Waiver Agreement between the Company and Renova Assets Ltd. dated October 9, 2013		8-K	October 10, 2013	10.1
31.1	Certification of chief executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X			
31.2	Certification of chief financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X			
32.1	Certification of chief executive officer and chief financial officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X			
101	Interactive Data Files	X			