

**Prospectus Supplement No. 1
(To Prospectus dated August 14, 2014)**

**CELLECTAR BIOSCIENCES, INC.
4,943,023 shares of common stock**

This prospectus supplement supplements the Prospectus dated August 14, 2014, relating to the sale of 4,943,023 shares of common stock underlying warrants to purchase common stock. The warrants have an exercise price of \$4.68 per share, and expire on August 20, 2019. This prospectus supplement should be read in conjunction with the Prospectus.

Quarterly Report on Form 10-Q

On November 12, 2014, we filed with the Securities and Exchange Commission our Quarterly Report on Form 10-Q for the quarter ended September 30, 2014. 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 8 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 12, 2014

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, 2014

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

CELLECTAR BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation or organization)

04-3321804

(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 | <input type="checkbox"/> | Accelerated filer | <input type="checkbox"/> |
| Non-accelerated filer | <input type="checkbox"/> (Do not check if a smaller reporting company) | Smaller reporting company | <input checked="" type="checkbox"/> |

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: 7,562,762 shares of common stock, \$0.00001 par value per share, as of November 10, 2014.

CELLECTAR BIOSCIENCES, INC.

FORM 10-Q INDEX

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

**CELLECTAR BIOSCIENCES, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)**

| | September 30, 2014 | December 31, 2013 |
|--|-------------------------------|------------------------------|
| ASSETS | | |
| CURRENT ASSETS: | | |
| Cash and cash equivalents | \$ 11,576,005 | \$ 2,418,384 |
| Restricted cash | 55,000 | 55,000 |
| Prepaid expenses and other current assets | 290,352 | 294,687 |
| Total current assets | 11,921,357 | 2,768,071 |
| FIXED ASSETS, NET | 2,111,280 | 2,360,534 |
| GOODWILL | 1,675,462 | 1,675,462 |
| OTHER ASSETS | 11,872 | 11,872 |
| TOTAL ASSETS | \$ 15,719,971 | \$ 6,815,939 |
| LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT) | | |
| CURRENT LIABILITIES: | | |
| Current maturities of notes payable | \$ 103,325 | \$ — |
| Accounts payable and accrued liabilities | 1,139,503 | 1,162,098 |
| Derivative liability | 820,124 | 3,359,363 |
| Capital lease obligations | 2,122 | 1,694 |
| Total current liabilities | 2,065,074 | 4,523,155 |
| LONG-TERM LIABILITIES: | | |
| Notes payable, less current maturities | 346,675 | 450,000 |
| Deferred rent | 147,234 | 143,234 |
| Capital lease obligation, less current portion | 11,184 | — |
| Total long-term liabilities | 505,093 | 593,234 |
| TOTAL LIABILITIES | 2,570,167 | 5,116,389 |
| COMMITMENTS AND CONTINGENCIES (Note 10) | | |
| STOCKHOLDERS' EQUITY: | | |
| Preferred stock, \$0.00001 par value; 7,000 shares authorized; none issued and outstanding as of September 30, 2014 and December 31, 2013 | — | — |
| Common stock, \$0.00001 par value; 20,000,000 shares authorized; 7,562,762 and 2,869,739 shares issued and outstanding as of September 30, 2014 and December 31, 2013, respectively | 76 | 29 |
| Additional paid-in capital | 69,744,261 | 52,759,089 |
| Deficit accumulated | (56,594,533) | (51,059,568) |
| Total stockholders' equity | 13,149,804 | 1,699,550 |
| TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY | \$ 15,719,971 | \$ 6,815,939 |

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

CELLECTAR BIOSCIENCES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(UNAUDITED)

| | <u>Three Months Ended</u> <u>September 30,</u> | | <u>Nine Months Ended</u> <u>September 30,</u> | |
|---|---|-----------------------|--|-----------------------|
| | <u>2014</u> | <u>2013</u> | <u>2014</u> | <u>2013</u> |
| COSTS AND EXPENSES: | | | | |
| Research and development | \$ 1,470,297 | \$ 2,066,827 | \$ 4,566,403 | \$ 5,306,277 |
| General and administrative | 802,794 | 843,622 | 2,849,714 | 3,039,074 |
| Restructuring costs | — | — | 221,815 | — |
| Total costs and expenses | <u>2,273,091</u> | <u>2,910,449</u> | <u>7,637,932</u> | <u>8,345,351</u> |
| LOSS FROM OPERATIONS | <u>(2,273,091)</u> | <u>(2,910,449)</u> | <u>(7,637,932)</u> | <u>(8,345,351)</u> |
| OTHER INCOME (EXPENSE): | | | | |
| Gain on revaluation of derivative warrants | 2,020,433 | 1,597,372 | 2,539,239 | 2,263,756 |
| Loss on issuance of derivative warrants | — | — | — | (744,957) |
| Interest expense, net | (253,058) | (2,241) | (436,272) | (7,107) |
| Total other income (expense), net | <u>1,767,375</u> | <u>1,595,131</u> | <u>2,102,967</u> | <u>1,511,692</u> |
| NET LOSS | <u>\$ (505,716)</u> | <u>\$ (1,315,318)</u> | <u>\$ (5,534,965)</u> | <u>\$ (6,833,659)</u> |
| BASIC AND DILUTED NET LOSS PER COMMON SHARE | <u>\$ (.10)</u> | <u>\$ (.46)</u> | <u>\$ (1.54)</u> | <u>\$ (2.47)</u> |
| SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS PER COMMON SHARE | <u>5,012,206</u> | <u>2,869,739</u> | <u>3,591,742</u> | <u>2,769,167</u> |

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

CELLECTAR BIOSCIENCES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(UNAUDITED)

| | Nine Months Ended September 30, | |
|--|------------------------------------|---------------------|
| | 2014 | 2013 |
| CASH FLOWS FROM OPERATING ACTIVITIES: | | |
| Net loss | \$ (5,534,965) | \$ (6,833,659) |
| Adjustments to reconcile net loss to cash used in operating activities: | | |
| Depreciation and amortization | 277,688 | 325,660 |
| Stock-based compensation expense | 682,775 | 1,101,465 |
| Non-cash interest expense related to convertible debt | 426,458 | — |
| Loss on disposal of fixed assets | 2,269 | 4,513 |
| Gain on revaluation of derivative warrants | (2,539,239) | (2,263,756) |
| Loss on issuance of derivative warrants | — | 744,957 |
| Changes in: | | |
| Accounts payable and accrued liabilities | (22,594) | 440,323 |
| Prepaid expenses and other current assets | 4,335 | (1,959) |
| Other assets and liabilities | 4,000 | 6,450 |
| Cash used in operating activities | <u>(6,699,273)</u> | <u>(6,476,006)</u> |
| CASH FLOWS FROM INVESTING ACTIVITIES: | | |
| Purchases of fixed assets | (17,397) | (134,956) |
| Change in restricted cash | — | 2,000,000 |
| Cash (used in) provided by investing activities | <u>(17,397)</u> | <u>1,865,044</u> |
| CASH FLOWS FROM FINANCING ACTIVITIES: | | |
| Proceeds from issuance of convertible debentures | 4,000,000 | — |
| Proceeds from issuance of notes payable | 617,500 | — |
| Payment of notes payable | (617,500) | — |
| Payments on capital lease obligations | (1,694) | (1,782) |
| Reverse stock split fractional shares | (1,158) | — |
| Proceeds from issuance of common stock, net of underwriting issuance costs | 12,395,965 | 4,975,153 |
| Cash paid for issuance costs | (518,822) | — |
| Change in deferred issuance costs | — | 70,539 |
| Cash provided by financing activities | <u>15,874,291</u> | <u>5,043,910</u> |
| INCREASE IN CASH AND EQUIVALENTS | <u>9,157,621</u> | <u>432,948</u> |
| CASH AND EQUIVALENTS AT BEGINNING OF PERIOD | <u>2,418,384</u> | <u>4,677,545</u> |
| CASH AND EQUIVALENTS AT END OF PERIOD | <u>\$ 11,576,005</u> | <u>\$ 5,110,493</u> |
| SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION | | |
| Exchange of debentures and accrued interest for common stock | <u>\$ 4,172,444</u> | <u>\$ —</u> |
| Fair value of warrants classified as derivative liability | <u>\$ —</u> | <u>\$ 5,720,000</u> |
| Relative fair value of warrants issued with debentures | <u>\$ 254,024</u> | <u>\$ —</u> |

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

CELLECTAR BIOSCIENCES, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

1. NATURE OF BUSINESS, ORGANIZATION AND GOING CONCERN

Cellectar Biosciences, Inc. (the “Company”) is a biopharmaceutical company developing compounds for the treatment and imaging of cancer. Prior to February 11, 2014, the name of the Company was Novelos Therapeutics, Inc. (“Novelos”). On April 8, 2011, Novelos entered into a business combination (the “Acquisition”) with Cellectar, Inc., a privately held Wisconsin corporation that designed and developed products to detect, treat and monitor a wide variety of human cancers.

References in these financial statements and notes to “Cellectar, Inc.” relate to the activities and financial information of Cellectar, Inc. prior to the Acquisition, references to “Novelos” relate to the activities and financial information of Novelos prior to the Acquisition and references to “the Company” or “we” or “us” or “our” relate to the activities and obligations of the combined Company following the Acquisition.

The Company’s headquarters are located in Madison, Wisconsin.

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 devoted substantially all of its efforts toward research and development and has, during the nine months ended September 30, 2014, generated a net loss of approximately \$5,535,000. The Company expects that it will continue to generate operating losses for the foreseeable future. See Note 4 below for further information regarding the Company’s recent fund raising activities. The Company’s ability to execute its operating plan 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 condensed consolidated balance sheet as of December 31, 2013 has been derived from audited financial statements. The accompanying unaudited condensed consolidated balance sheet as of September 30, 2014, the condensed consolidated statements of operations for the three months and nine months ended September 30, 2014 and 2013, the condensed consolidated statements of cash flows for the nine months ended September 30, 2014 and 2013 and the related interim information contained within the notes to the condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) for interim financial information and with the instructions, 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. GAAP for complete financial statements. In the opinion of management, the unaudited interim condensed consolidated financial statements reflect all adjustments which are of a nature necessary for the fair presentation of the Company’s consolidated financial position at September 30, 2014 and consolidated results of its operations for the three months and nine months ended September 30, 2014 and 2013, and its cash flows for the nine months ended September 30, 2014 and 2013. The results for the nine months ended September 30, 2014 are not necessarily indicative of future results.

These unaudited condensed 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 for the fiscal year ended December 31, 2013, which was filed with the SEC on March 19, 2014.

Principles of Consolidation — The consolidated financial statements include the accounts of the Company and the accounts of its wholly-owned subsidiary. All significant 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 at September 30, 2014 and December 31, 2013 consisted of a certificate of deposit of \$55,000 required under the Company’s lease agreement for its Madison, Wisconsin facility.

Goodwill — At September 30, 2014 and December 31, 2013, the balance of goodwill resulted from 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. No such event or change in circumstances occurred; therefore no changes in goodwill were made during the nine months ended September 30, 2014.

Impairment of Long-Lived Assets — Long-lived assets other than goodwill consist primarily of fixed assets, which we periodically evaluate for potential impairment. Whenever events or circumstances change, an assessment is made as to whether there has been an impairment in the value of long-lived assets by determining whether projected undiscounted cash flows generated by the applicable asset exceed its net book value as of the assessment date. No such event or change in circumstances occurred; therefore no such impairment occurred during the nine months ended September 30, 2014.

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 Financial Accounting Standards Board Accounting Standards Codification (“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.

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, convertible debt 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 remaining 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 is 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 551,365 and 826,365 at September 30, 2014 and December 31, 2013, 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, 2014 and December 31, 2013, these warrants represented the only outstanding derivative instruments issued or held by the Company.

Development Stage Entity — In June 2014, the FASB published an Accounting Standards Update 2014-10 (ASU 2014-10) that removed the development stage entity guidance under ASC 915 *Development Stage Entities*, thereby removing the financial reporting distinction between development stage entities and other reporting entities.

In addition, ASU 2014-10 eliminates the requirements for development stage entities to (1) present inception-to-date information in the statements of income, cash flows, and shareholder equity, (2) label the financial statements as those of a development stage entity, (3) disclose a description of the development stage activities in which the entity is engaged, and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage.

Presentation and disclosure requirements under ASC 915 are no longer required for the first annual period beginning after December 15, 2014, including interim periods therein. Earlier adoption of the new guidance for ASC 915 is permitted for any annual or interim period for which financial statements have not yet been issued for public business entities. Accordingly, the Company elected to adopt these changes effective with the filing of its second quarter Form 10-Q on August 4, 2014.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties About an Entity's Ability to Continue as a Going Concern*. The standard requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date the financial statements are issued and provides guidance on determining when and how to disclose going concern uncertainties in the financial statements.

ASU 2014-15 applies to all entities and is effective for annual and interim reporting periods ending after December 15, 2016, with early adoption permitted. The Company does not expect that the adoption of this standard will have a material effect on its financial statements.

2. FAIR VALUE

In accordance with the 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.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The Company had issued warrants to purchase 1,365 shares of common stock prior to the Acquisition ("Legacy Warrants") that are classified within the Level 2 hierarchy. Additionally, the Company issued warrants to purchase an aggregate of 825,000 common shares in a February 2013 public offering ("February 2013 Public Offering Warrants"). On February 20, 2014, warrants to purchase 275,000 shares of common stock issued in the February 2013 offering expired. The remaining 550,000 warrants are classified within the Level 3 hierarchy.

The following tables set forth the Company's financial instruments carried at fair value using the lowest level of input applicable to each financial instrument as of September 30, 2014 and December 31, 2013:

| | September 30, 2014 | | | Fair Value |
|--|---------------------------|----------------|-------------------|-------------------|
| | Level 1 | Level 2 | Level 3 | |
| Liabilities: | | | | |
| Legacy Warrants | \$ — | \$ 624 | \$ — | \$ 624 |
| February 2013 Public Offering Warrants | — | — | 819,500 | 819,500 |
| Total | <u>\$ —</u> | <u>\$ 624</u> | <u>\$ 819,500</u> | <u>\$ 820,124</u> |

| | December 31, 2013 | | | |
|--|-------------------|-----------------|---------------------|---------------------|
| | Level 1 | Level 2 | Level 3 | Fair Value |
| Liabilities: | | | | |
| Legacy Warrants | \$ — | \$ 4,363 | \$ — | \$ 4,363 |
| February 2013 Public Offering Warrants | — | — | 3,355,000 | 3,355,000 |
| Total | <u>\$ —</u> | <u>\$ 4,363</u> | <u>\$ 3,355,000</u> | <u>\$ 3,359,363</u> |

In order to estimate the fair value of the Legacy Warrants considered to be derivative instruments, the Company uses the Black-Scholes option pricing model and assumptions that consider, among other variables, the fair value of the underlying stock, risk-free interest rate, volatility, expected life and dividend rates. Assumptions used are generally consistent with those disclosed for stock-based compensation (see Note 7).

In order to estimate the value of the February 2013 Public Offering Warrants considered to be derivative instruments as of September 30, 2014, 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 rate of 1.07% (compared with risk-free interest rate of 0.92% as of December 31, 2013), volatility of 110% (compared with 109% as of December 31, 2013), remaining contractual term of 3.64 years (4.14 years as of December 31, 2013), future financing requirements and dividend rates.

The assumptions used to estimate the value of the February 2013 Public Offering Warrants as of December 31, 2013 include the fair value of the underlying stock, risk free interest rates ranging from 0.07% to 1.27%, volatility ranging from 75% to 115%, the contractual term of the warrants ranging from 0.14 to 4.14 years, future financing requirements and dividend rates. The future financing estimates are based on the Company's estimates of anticipated cash requirements over the term of the warrants as well as the frequency of required financings based on its assessment of its historical financing trends and anticipated future events. Due to the nature of these inputs and the valuation technique utilized, these warrants are classified within the Level 3 hierarchy.

The following table summarizes the changes in the fair market value of the Company's warrants which are classified within the Level 3 fair value hierarchy.

| | September 30, 2014 | December 31, 2013 |
|--|-----------------------|----------------------|
| Beginning balance – Fair value | \$ 3,355,000 | \$ — |
| Fair value of warrants issued in connection with February 2013 public offering | — | 5,720,000 |
| Gain on derivatives resulting from change in fair value | (2,535,500) | (2,365,000) |
| Ending balance – Fair value | <u>\$ 819,500</u> | <u>\$ 3,355,000</u> |

3. CONVERTIBLE DEBT

On February 5, 2014, the Company entered into a securities purchase agreement with certain accredited investors to sell \$4,000,000 in principal amount of convertible debentures and warrants to purchase 400,000 shares of its common stock for an aggregate purchase price of \$4,000,000. On February 6, 2014, the Company completed the sale of the debentures and warrants (the "February 2014 Private Placement"). The debentures accrued interest at an annual rate of 8%, payable upon redemption or conversion, in cash or shares of the Company's common stock.

The agreement provided that in the event of any sale of securities by the Company resulting in aggregate gross proceeds of at least \$2,000,000 (a "Subsequent Financing"), the holder could require the Company to redeem some or all of the then outstanding principal amount of the debenture, plus all accrued but unpaid interest and other amounts due in respect of the debenture, in an amount equal to the amount of the holder's investment in the Subsequent Financing, by delivering notice to the Company on or before the consummation date of the Subsequent Financing. The agreement further provided that if, within 21 months after the issuance of the debentures, the Company raised gross proceeds of at least \$8,000,000, in the aggregate, in one or more subsequent financings (the "Minimum Proceeds"), the Company could, by notice given within three trading days after the receipt of the Minimum Proceeds, compel holders to convert (at a conversion price of \$10.00 per share) all or part of the then outstanding principal amount of the debentures and accrued but unpaid interest and other amounts.

The Company determined that the warrants associated with the convertible debentures meet the requirements for classification as equity. Therefore, the relative fair value of the warrants at the date of issuance of \$254,000 was included as a component of stockholders' equity. In order to estimate the value of these warrants the Company used a probability weighted valuation model together with assumptions that considered, among other variables, the fair value of the underlying stock, a risk-free interest rate of 1.52%, a volatility of 110%, a 0% dividend rate, a contractual term of 5 years, and an estimate of the probability that the warrants will become exercisable upon conversion of the associated debt.

Following the allocation of the relative fair value of the warrants to equity, the remaining value of approximately \$3,746,000, at the date of issuance, was allocated to the convertible debentures. The resulting discount on the debentures of \$254,000 was fully accreted to interest expense during the nine months ended September 30, 2014 as a result of the tender of the debentures in exchange for common stock and warrants in August 2014. The Company accrued approximately \$172,000 in interest expense through the date of exchange. See Note 4 for further discussion of the debenture exchange.

Common Stock Purchase Warrants

The warrants had an exercise price of \$20.00 and, if unexercised, would have expired on February 6, 2019. The warrants were exercisable only following the full or partial conversion of the associated debentures, and in the event of a partial conversion the warrant would have become exercisable only for a proportionate number of the total shares subject to the warrant. In the event any debentures ceased to be outstanding prior to the associated warrants becoming exercisable, whether by reason of repayment, prepayment, redemption or otherwise, the associated warrants would automatically terminate. At the time of the exchange of common stock and warrants for the debentures as described in Note 4, the debentures ceased to be outstanding and the associated warrants were unexercised and therefore terminated.

4. STOCKHOLDERS' EQUITY

August 2014 Underwritten Offering

On August 20, 2014, the Company completed an underwritten public offering of 3,583,333 shares of its common stock and warrants to purchase 3,833,333 shares of its common stock at an exercise price of \$4.68 per share, expiring on August 20, 2019 (the "August 2014 Underwritten Offering"). The offering price was \$3.75 per common share and \$.01 per warrant and resulted in gross proceeds of \$13,475,832 and net proceeds of \$11,877,143 after deducting transaction costs. The underwriter received a weighted average discount of approximately 6.4 percent on the underwritten securities. The underwriting discount, along with other legal and accounting costs associated with the offering, including those previously included as deferred issuance costs, totaling \$1,598,689, was recorded as a reduction of the gross proceeds received. The underwriter also received warrants to purchase 96,988 shares of common stock at an exercise price of \$4.6875 as compensation pursuant to the underwriting agreement. The fair value of the underwriter warrants was approximately \$275,000 at issuance and had no impact on stockholders' equity. The Company uses the Black-Scholes option pricing model to value warrants and applies assumptions that consider, among other variables, the fair value of the underlying stock, risk-free interest rate, volatility, expected life and dividend rates in estimating fair value for the warrants. Assumptions used are generally consistent with those disclosed for stock-based compensation (see Note 7).

The warrant exercise price for all warrants issued as part of the August 2014 Underwritten Offering and the common stock issuable pursuant to such warrants is subject to adjustment only for stock dividends, stock splits and similar capital reorganizations so that the rights of the warrant holders after such events will be equivalent to the rights of the warrant holders prior to such events. The Company determined that these warrants meet the requirements for classification as equity.

In conjunction with the August 2014 Underwritten Offering, the Company's common stock and the warrants issued in the offering were listed on the NASDAQ Capital Market.

August 2014 Debenture Tender and Exchange

In conjunction with the August 2014 Underwritten Offering, all of the debenture holders elected to participate in the offering of common stock and warrants at the combined offering price of \$3.76 per share. As a result, the \$4,000,000 principal amount of debentures and accrued interest of \$172,444 was extinguished in exchange for 1,109,690 shares of the Company's common stock and warrants to purchase 1,109,690 shares of common stock at \$4.68 per share.

Common Stock Warrants

The following table summarizes information with regard to outstanding warrants to purchase common stock as of September 30, 2014.

| Offering | Number of Shares Issuable Upon Exercise of Outstanding Warrants | Exercise Price | Expiration Date |
|--|--|-----------------------|------------------------|
| August 2014 Public Offering | 5,040,011 | \$ 4.68 | August 20, 2019 |
| February 2013 Public Offering (1) | 550,000 | 3.75 | February 20, 2018 |
| February 2013 Public Offering – Placement Agents | 38,496 | 12.50 | February 4, 2018 |
| November 2012 Private Placement | 50,000 | 25.00 | November 2, 2017 |
| June 2012 Public Offering | 149,069 | 25.00 | June 13, 2017 |
| December 2011 Underwritten Offering | 462,411 | 12.00 | December 6, 2016 |
| April 2011 Private Placement | 302,922 | 15.00 | March 31, 2016 |
| Legacy warrants (1) | 1,365 | 3.75 | July 27, 2015 |
| Legacy warrants | 5,252 | 321.30 | July 27, 2015 |
| Legacy warrants | 4,570 | 1,989.00 - 2019.60 | December 31, 2015 |
| Total | 6,604,096 | | |

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

5. NOTES PAYABLE

The Company and a group of lenders entered into a Note Purchase and Security Agreement dated as of July 29, 2014 providing for borrowing by the Company of up to an aggregate of \$1,000,000 upon the issuance of the Company's secured promissory notes (the “Notes”) bearing interest of 8% per annum and having a stated maturity of 60 days from issuance or the earlier closing of an equity financing with gross proceeds to the Company of \$1,000,000. The Company borrowed an aggregate of \$617,500 at a closing on July 29, 2014.

Concurrently with the closing of the August 2014 Underwritten Offering, the outstanding principal amount of the Notes plus accrued interest of approximately \$3,000 was repaid in full.

The remaining notes payable balance at September 30, 2014 consists entirely of the \$450,000 loan from the Wisconsin Department of Commerce dated September 15, 2010.

6. REVERSE STOCK SPLIT AND RECAPITALIZATION

At the annual meeting of stockholders held on May 22, 2014, the Company's stockholders approved an amendment to the certificate of incorporation to effect a reverse split of the Company's common stock at a ratio between 1:10 to 1:20 in order to satisfy requirements for the listing of the Company's common stock on the NASDAQ Capital Market. In addition, the proposal approved by the stockholders provided that if the reverse split was effected, the number of shares of common stock that the Company is authorized to issue would be reduced from 150,000,000 to the greater of (A) 20,000,000 and (B) the number of shares equal to three (3) times the sum of the number of all shares of common stock outstanding and the number of shares of common stock issuable upon exercise or conversion of all outstanding options, warrants and convertible debt. The Company's stockholders further authorized the board of directors to determine the ratio at which the reverse split would be effected and the corresponding reduction in authorized shares of common stock by filing an appropriate amendment to the Company's certificate of incorporation. The board of directors authorized the ratio of the reverse split and corresponding reduction in authorized shares on June 6, 2014 and effective at the close of business on June 13, 2014, the second amended and restated certificate of incorporation was amended to effect a 1-for-20 reverse split of the Company's common stock (the “Listing Reverse Split”) and reduce the number of authorized shares of common stock to 20,000,000 from 150,000,000. All share and per share numbers included in this Form 10-Q give effect to the Listing Reverse Split.

7. STOCK-BASED COMPENSATION

Accounting for Stock-Based Compensation

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

| | Three Months Ended September 30, | | Nine Months Ended September 30, | |
|---|-------------------------------------|-------------------|------------------------------------|---------------------|
| | 2014 | 2013 | 2014 | 2013 |
| Employee and director stock option grants: | | | | |
| Research and development | \$ 31,441 | \$ 84,949 | \$ 142,142 | \$ 297,561 |
| General and administrative | 130,700 | 206,449 | 491,665 | 782,731 |
| Restructuring costs | — | — | 47,853 | — |
| | <u>162,141</u> | <u>291,398</u> | <u>681,660</u> | <u>1,080,292</u> |
| Non-employee consultant stock option grants: | | | | |
| Research and development | (15,582) | 5,812 | 1,115 | 10,134 |
| General and administrative | — | 464 | — | 11,039 |
| | <u>(15,582)</u> | <u>6,276</u> | <u>1,115</u> | <u>21,173</u> |
| Total stock-based compensation | <u>\$ 146,559</u> | <u>\$ 297,674</u> | <u>\$ 682,775</u> | <u>\$ 1,101,465</u> |

In October 2013, the Company granted options to purchase 264,278 shares of common stock in connection with the appointment of its then Acting Chief Executive Officer, including options to purchase 96,278 shares of common stock at \$15.00 per share (the "Anti-dilution Option"), exercisable as shares of the Company's common stock are issued following the exercise of then outstanding warrants to purchase shares of the Company's common stock, in the ratio of one option share for each 19 shares issued upon warrant exercise. No compensation expense was recognized related to these options as the Company was not able to conclude that the achievement of the performance condition was probable. On February 20, 2014, warrants to purchase 275,000 shares of common stock at an exercise price of \$10.00 per share expired unexercised and as a result, the number of shares subject to the Anti-dilution Option was reduced by 14,474 shares, according to its terms.

Assumptions Used In Determining Fair Value

Valuation and amortization method. The fair value of each stock award is estimated on the grant date using the Black-Scholes option-pricing model. The estimated fair value of employee stock options is amortized to expense using the straight-line method over the vesting period. The estimated fair value of the non-employee options is amortized to expense over the period during which a non-employee is required to provide services for the award (usually the vesting period).

Volatility. The Company estimates volatility based on an average of (1) the Company's historical volatility since its common stock has been publicly traded and (2) review of volatility estimates of publicly held drug development companies with similar market capitalizations.

Risk-free interest rate. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant commensurate with the expected term assumption.

Expected term. The expected term of stock options granted is based on an estimate of when options will be exercised in the future. The Company applied the simplified method of estimating the expected term of the options, as described in the SEC's Staff Accounting Bulletins 107 and 110, as the historical experience is not indicative of the expected behavior in the future. The expected term, calculated under the simplified method, is applied to groups of stock options that have similar contractual terms. Using this method, the expected term is determined using the average of the vesting period and the contractual life of the stock options granted. The Company applied the simplified method to non-employees who have a truncation of term based on termination of service and utilizes the contractual life of the stock options granted for those non-employee grants which do not have a truncation of service.

Forfeitures. The Company records stock-based compensation expense only for those awards that are expected to vest. A forfeiture rate is estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from initial estimates. An annual forfeiture rate of 2% and 0% was applied to all unvested options for employees and directors, respectively for the nine months ended September 30, 2014 and for the year ended December 31, 2013. Ultimately, the actual expense recognized over the vesting period will be for only those shares that vest.

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

| | <u>Nine Months Ended September 30, 2014</u> | <u>Nine Months Ended September 30, 2013</u> |
|--|---|---|
| Volatility | 108% | 109% |
| Risk-free interest rate | 1.76% | 0.92% - 1.82% |
| Expected life (years) | 6.0 | 6.0 |
| Dividend | 0% | 0% |
| Weighted-average exercise price | \$ 7.40 | \$ 9.40 |
| Weighted-average grant-date fair value | \$ 6.20 | \$ 7.80 |

Exercise prices for all grants made during the nine months ended September 30, 2014 and 2013 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 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, 2013 | 634,658 | \$ 18.07 | | |
| Granted | 20,000 | \$ 7.40 | | |
| Canceled | (21,018) | \$ 19.57 | | |
| Forfeited | (14,474) | \$ 15.00 | | |
| Outstanding at September 30, 2014 | <u>619,166</u> | \$ 17.64 | | |
| Vested, September 30, 2014 | <u>278,051</u> | \$ 27.98 | 4.04 | \$ — |
| Unvested, September 30, 2014 | <u>341,115</u> | \$ 9.21 | 9.02 | \$ — |
| Exercisable at September 30, 2014 | <u>278,051</u> | \$ 27.98 | 4.04 | \$ — |

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, 2014, there was approximately \$1,849,000 of total unrecognized compensation cost related to unvested stock-based compensation arrangements. Of this total amount, the Company expects to recognize approximately \$1,094,000, \$562,000, and \$193,000 during 2014, 2015, and 2016, respectively. The Company expects 259,310 unvested options to vest in the future. In addition, there are outstanding options to purchase 81,805 shares of common stock that vest upon the occurrence of future events. The Company was not able to conclude that the achievement of the performance condition is probable; therefore, the Company has not recognized any expense associated with the \$418,000 fair value of these awards. Recognition of the expense will begin when and if the Company determines that achievement of the performance condition is probable. The weighted-average grant-date fair value of vested and unvested options outstanding at September 30, 2014 was \$16.23 and \$5.90, respectively.

8. 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, (NOLs) 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 nine months ended September 30, 2014 or 2013 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.

9. 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 and convertible debt. Since there is a net loss attributable to common stockholders for the nine months ended September 30, 2014 and 2013, 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:

| | <u>Nine Months Ended September 30,</u> | |
|---------------|---|--------------------|
| | <u>2014</u> | <u>2013</u> |
| Warrants | <u>6,604,096</u> | <u>1,839,123</u> |
| Stock options | <u>619,166</u> | <u>305,233</u> |

10. COMMITMENTS AND 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 (“FDA”) 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 our favor 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. The Appeals Court heard oral arguments on October 10, 2014. On November 10, 2014, the Appeals Court issued its decision affirming the judgment of the Superior Court in favor of the Company and against ZAO BAM on all counts of the Company’s claim and ZAO BAM’s counterclaim.

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.

11. RESTRUCTURING COSTS

During 2013 the Company had several changes to its board composition and executive management, including the relocation of the Company’s principal executive offices from Newton, Massachusetts to its corporate headquarters in Madison, Wisconsin. During the nine months ended September 30, 2014, the Company incurred approximately \$222,000 of costs associated with the closure of the executive offices in Newton, Massachusetts and accruals related to severance agreements. This amount has been classified as restructuring costs on the accompanying statement of operations.

As a further result of the executive offices being relocated, the responsibilities of the Company’s Vice President of Finance, Chief Financial Officer and Treasurer (CFO) and those of the Director of Financial Reporting were transitioned to the Company’s headquarters in Madison, Wisconsin. As a result, the Company’s relationship with both employees terminated in June 2014. These two employees received lump-sum severance payments totaling approximately \$160,000, which is included in the approximately \$222,000 restructuring costs presented in the accompanying Condensed Consolidated Statement of Operations. Benefits will continue for these employees for six and four months, respectively, following termination.

In addition, all unvested options held by the former CFO were credited with an additional six months vesting and the vested options held by this employee shall be exercisable for eighteen months following termination. All unvested options held by the former Director of Financial Reporting shall be exercisable for twelve months following termination.

The Company does not anticipate any further costs related to the relocation and restructuring.

12. RELATED PARTY TRANSACTIONS

The Company’s Chief Scientific Officer and principal founder of Collectar, who is a director and shareholder of the Company, is a faculty member at the University of Wisconsin-Madison (“UW”). During the nine months ended September 30, 2014, the Company was invoiced \$486,000 by UW, of which \$469,000 has been paid, for costs associated with clinical trial agreements. During the nine months ended September 30, 2013, the Company made contributions to UW totaling \$62,500 for use towards unrestricted research activities.

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 in our annual report on Form 10-K and 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

Collectar Biosciences, Inc. (the Company) is a biopharmaceutical company developing compounds for the treatment and imaging of cancer. Prior to February 11, 2014, the name of the Company was Novelos Therapeutics, Inc. (Novelos). On April 8, 2011, Novelos entered into a business combination (the Acquisition) with Collectar, Inc., a privately held Wisconsin corporation that designed and developed products to detect, treat and monitor a wide variety of human cancers.

Our cancer-targeting technology permits selective delivery of a wide range of agents to cancer cells, including cancer stem cells. By attaching different agents to our proprietary PLE cancer-targeting delivery platform, we believe we can engineer product candidates with the potential to both image and treat a wide range of solid tumors. This offers the potential for a paradigm shift in the detection and treatment of cancer by using the same delivery platform for both detecting malignancy and providing efficacy versus all three major drivers of morbidity and mortality in cancer: primary tumors, metastases and stem cell-based relapse.

The Company is currently developing three proprietary product candidates:

- I-124-CLR1404 is a small-molecule, broad-spectrum, cancer-targeting PET imaging agent that we believe has the potential to be the first of its kind for the selective detection of tumors and metastases in a broad range of cancers. Investigator-sponsored Phase 1/2 clinical trials of I-124-CLR1404 are ongoing across solid tumor indications. In March 2014, we commenced enrollment in a Phase 2 clinical trial studying I-124-CLR1404 in the imaging of glioblastoma, a type of glioma. We expect to complete this trial during the first half of 2015. In April 2014, the FDA granted I-124-CLR1404 Orphan status as a diagnostic for the management of glioma.
- I-131-CLR1404 is a small-molecule, broad-spectrum, cancer-targeting molecular radiotherapeutic that delivers cytotoxic (cell-killing) radiation directly and selectively to cancer cells and cancer stem cells. We believe I-131-CLR1404 also has the potential to be the first therapeutic agent to use phospholipid ether (PLE) analogs to target cancer cells. In November 2013, we completed enrollment in a Phase 1b dose-escalation trial evaluating I-131-CLR1404 in the treatment of patients with advanced solid tumors and the results of the trial were presented to the American Society of Clinical Oncology (ASCO) June 2014 Annual Meeting. Because of the highly radiosensitive nature, clear unmet medical need in the relapse/refractory setting and the potential to receive orphan drug designation, the Company is pursuing multiple myeloma as an initial target indication for future I-131-CLR1404 development. The Investigational New Drug ("IND") application for I-131-CLR1404 in multiple myeloma was submitted in August 2014 and received clearance from the FDA in September 2014. Orphan Drug Designation was also requested for I-131-CLR1404 for multiple myeloma in September 2014.
- CLR1502 is a preclinical, small-molecule, cancer-targeting, non-radioactive optical imaging agent for intraoperative tumor margin illumination and non-invasive tumor imaging. We anticipate filing an IND with the FDA for CLR1502 in either the fourth quarter 2014 or the first quarter of 2015.

Together, we believe our compounds have the potential to improve upon current standard of care for the detection, treatment and monitoring of a wide variety of human cancers.

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 and contract manufacturing fees paid to contract research organizations, fees paid to medical institutions for 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 activities, investor relations, directors' fees and professional fees for legal and accounting services.

Nine Months Ended September 30, 2014 and 2013

Research and Development. Research and development expense for the nine months ended September 30, 2014 was approximately \$4,566,000 (comprised of \$871,000 in clinical project costs, \$275,000 of preclinical project costs, \$589,000 of manufacturing and related costs and \$2,831,000 in general unallocated research and development costs) compared to 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) for the nine months ended September 30, 2013. The overall decrease in research and development expense of approximately \$740,000, or 14%, was due to three primary factors: (1) the restructuring, which reduced compensation-related expenses by approximately \$543,000; (2) a \$112,000 decrease in purchased services and related costs in the nine months ended September 30, 2014 versus 2013, which was related to a decrease in support of educational entities driving the IND enabling activities; and (3) a reduction in capital-related costs of approximately \$112,000. These reductions were slightly offset by an increase of approximately \$27,000 related to materials purchased in support of our ongoing clinical trials.

General and Administrative. General and administrative expense for the nine months ended September 30, 2014 was approximately \$2,850,000 compared to approximately \$3,039,000 in the nine months ended September 30, 2013. The approximately \$189,000, or 6%, decrease is related to lower compensation costs as a result of the restructuring and a decrease in directors fees associated with a reduction in the number of independent directors. The decreases were partially offset by an increase in legal fees.

Restructuring Costs. During the nine months ended September 30, 2014, the Company recorded approximately \$222,000 of restructuring expenses related to the closure of the Newton, Massachusetts executive offices. The Company did not incur any restructuring costs in the nine months ended September 30, 2013.

Gain on Derivative Warrants. We recorded a gain on derivative warrants of approximately \$2,539,000 in the nine months ended September 30, 2014 and a gain on derivative warrants of approximately \$2,264,000 in the nine months ended September 30, 2013. These amounts represent the change in fair value, 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 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, 2014.

Interest expense, net. Interest expense for the nine months ended September 30, 2014 consists of approximately \$172,000 of interest expense related to the accrual of interest at the stated rate on convertible debentures, approximately \$3,000 related to the repayment of the bridge notes, approximately \$254,000 of non-cash interest expense related to the accretion of the discount on convertible debentures and approximately \$7,000 related to the Company's outstanding debt with the Wisconsin Department of Commerce. Interest expense for the nine months ended September 30, 2013 was driven solely by the notes payable to the Wisconsin Department of Commerce. The increase in interest expense is attributable to the issuance of the convertible debentures in the February 2014 Private Placement.

Liquidity and Capital Resources

We have financed our operations since inception primarily through the sale of equity and debt securities. As of September 30, 2014, we had approximately \$11,576,000 in cash and cash equivalents. To date, including funds raised by Collectar, Inc., we have raised capital aggregating approximately \$147 million.

During the nine months ended September 30, 2014, we reported a net loss of approximately \$5,535,000, while using approximately \$6,699,000 in cash in operations. The net loss included an approximately \$2,539,000 gain on the revaluation of derivative warrants, which was partially offset by the following: approximately \$683,000 in stock-based compensation expense, approximately \$278,000 in expense related to depreciation and amortization, and approximately \$426,000 of non-cash interest expense related to the accretion of the discount on convertible debt. After adjustment for these non-cash items, other changes in working capital resulted in a decrease of \$12,000.

During the nine months ended September 30, 2014, we purchased approximately \$17,000 in fixed assets.

In February 2014, we completed a private placement of convertible debentures and warrants for gross proceeds of \$4,000,000. The debentures maturing on February 6, 2016 were convertible at any time at \$10.00 per share into 400,000 shares of common stock. The agreement provided that in the event of the sale of securities by the Company for minimum proceeds of at least \$2,000,000 ("Subsequent Financing"), the holders of the debentures could elect to redeem some or all of the then outstanding principal amount of the debenture, along with accrued but unpaid interest, in an amount equal to the amount of the holder's investment in the Subsequent Financing.

The agreement also provided that if, within 21 months of the issuance of the debentures, the Company raised gross proceeds of at least \$8,000,000 in aggregate, the Company could require the holders of the debentures to convert all or part of the then outstanding principal amount and accrued but unpaid interest of the debentures. In the event that the holders of the debentures did not convert all of the debentures in a Subsequent Financing, the Company could have been required to satisfy the remaining outstanding debt and accrued but unpaid interest with payments in cash.

In August 2014, we closed an underwritten, public offering of 3,583,333 common shares and 3,833,333 warrants to purchase common shares for gross proceeds of approximately \$13.5 million, and net proceeds of \$11.9 million after underwriting and related fees. The underwriter partially exercised their overallotment option for 250,000 shares and 500,000 warrants, which are included in the totals above. This public offering constituted a Subsequent Financing. All \$4,000,000 principal amount of debentures, together with approximately \$172,000 of accrued interest, were tendered in exchange for 1,109,690 shares of common stock and warrants to purchase 1,109,690 shares of common stock on the same price terms as the underwritten public offering.

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. During the nine months ended September 30, 2014, we generated a net loss of approximately \$5,535,000 and we expect that we will continue to generate operating losses for the foreseeable future. At September 30, 2014, our consolidated cash balance was approximately \$11,576,000. We believe this cash balance is adequate to fund operations through the third quarter of 2015. 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, we have not entered into negotiations for any such transactions and there can be no assurance that we will obtain the necessary funding. Other than the uncertainties regarding our ability to obtain additional funding and the repayment of convertible debt obligations, 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 Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2014. 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, 2014 our 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 2014 that would have materially effected, or would have been reasonably likely to materially effect, 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 (“FDA”) 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 our favor 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. The Appeals Court heard oral arguments on October 10, 2014. On November 10, 2014, the Appeals Court issued its decision affirming the judgment of the Superior Court in favor of the Company and against ZAO BAM on all counts of the Company’s claim and ZAO BAM’s counterclaim.

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, 2014, our consolidated cash balance was approximately \$11,576,000. We believe our cash balance at September 30, 2014, is adequate to fund operations through the third quarter of 2015. 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 we are able to maintain our listing on a national exchange;
- 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 an event, our business, prospects, financial condition, and results of operations may be adversely affected.

We will require additional funds to conduct research and development, establish and conduct preclinical and clinical 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 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 and conducting clinical trials. 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 may 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, 2014, we had a stockholders' equity of approximately \$13,150,000. The net loss for the nine months ended September 30, 2014 was approximately \$5,535,000, and we may never achieve profitability.

Item 6. Exhibits

| Exhibit No. | Description | Filed with this Form 10-Q | <u>Incorporation by Reference</u> | | |
|------------------------|--|--|--|--------------------|------------------------|
| | | | Form | Filing Date | Exhibit No. |
| 2.1 | Agreement and Plan of Merger by and among Novelos Therapeutics, Inc., Cell Acquisition Corp. and Collectar, 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 |
| 3.1.1 | Amendment to the Second Amended and restated Articles of Incorporation | | 8-K | June 13, 2014 | 3.1 |
| 3.2 | Amended and Restated By-laws | | 8-K | June 1, 2011 | 3.1 |
| 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 | | | |