

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

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NOVELOS THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware

*(State or other jurisdiction
of incorporation or organization)*

2834

*(Primary Standard Industrial
Classification Code Number)*

04-3321804

*(I.R.S. Employer
Identification Number)*

**One Gateway Center
Suite 504**

**Newton, Massachusetts 02458
(617) 244-1616**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Harry S. Palmin

President and Chief Executive Officer

Novelos Therapeutics, Inc.

One Gateway Center, Suite 504

Newton, Massachusetts 02458

(617) 244-1616

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

Smaller reporting company

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities to be Registered | Proposed Maximum Aggregate Offering Price (1) | Amount of Registration Fee |
|---|---|----------------------------|
| Common Stock, par value \$0.00001 per share (3) | \$ 15,000,000 | \$ 1,741.50 |
| Common Stock, par value \$0.00001 per share (2) (3) | 2,250,000 | 261.23 |
| | | <u>\$ 2,002.73</u> |

- (1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act.
- (2) Consists of additional proceeds which may be received pursuant to the exercise of a 45-day option granted by the registrant to the underwriters to cover over-allotments, if any.
- (3) Pursuant to Rule 416, the securities being registered hereunder include such indeterminate number of additional shares of common stock as may be issued after the date hereof as a result of stock splits, stock dividends or similar transactions.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION, DATED JULY 1, 2011



Novelos Therapeutics, Inc.

shares of common stock

This is a firm commitment public offering of _____ shares of our common stock.

Our common stock is quoted on the OTC Bulletin Board under the symbol "NVLTOB". We intend to apply for listing of our common stock on The NASDAQ Capital Market under the symbol "NVL". No assurance can be given that our application will be approved. Prior to the effectiveness of the registration statement of which this prospectus is a part, we anticipate that we will effect a reverse stock split within a range of 1:2 to 1:10 (the "Offering Reverse Split"). The proposal for the Offering Reverse Split has been approved by our stockholders and our board of directors is authorized to determine the time and ratio at which the reverse split will be effected by filing the appropriate amendment to our certificate of incorporation. On June 29, 2011, the last reported sale price for our common stock was \$1.43 per share.

Investing in the offered securities involves a high degree of risk. See "Risk Factors" beginning on page 7 of this prospectus for a discussion of information that you should consider before investing in our securities.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

| | <u>Per Share</u> | <u>Total</u> |
|--|------------------|--------------|
| Public offering price | \$ | \$ |
| Underwriting discounts and commissions (1) | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ |

(1) See "Underwriting" for a description of compensation payable to the underwriter.

We have granted a 45-day option to Rodman & Renshaw, LLC, the underwriter, to purchase up to an additional _____ shares from us solely to cover over-allotments, if any. The shares issuable upon exercise of the underwriter option are identical to those offered by this prospectus and have been registered under the registration statement of which this prospectus forms a part.

In addition, we have also agreed to issue to the underwriter a warrant to purchase a number of shares equal to 5% of the shares of common stock sold (excluding the over-allotment) exercisable at \$ _____ per share.

The underwriter expects to deliver the shares to purchasers in the offering on or about _____, 2011.

Rodman & Renshaw, LLC

The date of this prospectus is _____, 2011.

NOVELOS THERAPEUTICS, INC.
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No dealer, salesperson or other person has been authorized to give any information or to make any representations other than those contained in this prospectus in connection with the offer contained in this prospectus and, if given or made, such information or representations must not be relied upon as having been authorized by us.

Neither the delivery of this prospectus nor any sale made hereunder shall under any circumstances create an implication that there has been no change in our affairs since the date hereof. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy securities other than those specifically offered hereby or of any securities offered hereby in any jurisdiction where, or to any person to whom, it is unlawful to make such offer or solicitation. The information contained in this prospectus speaks only as of the date of this prospectus unless the information specifically indicates that another date applies.

This prospectus has been prepared based on information provided by us and by other sources that we believe are reliable. This prospectus summarizes certain documents and other information in a manner we believe to be accurate, but we refer you to the actual documents, if any, for a more complete understanding of what we discuss in this prospectus. In making a decision to invest in the common stock, you must rely on your own examination of us and the terms of the offering and securities offered in this prospectus, including the merits and risks involved.

We are not making any representation to you regarding the legality of an investment in the securities offered in this prospectus under any legal investment or similar laws or regulations. You should not consider any information in this prospectus to be legal, business, tax or other advice. You should consult your own attorney, business advisor and tax advisor for legal, business and tax advice regarding an investment in our common stock.

You may only rely on the information contained in this prospectus or that we have referred you to. We have not authorized anyone to provide you with different information. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities other than the securities offered by this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities in any circumstances in which such offer or solicitation is unlawful or in any state or to any person within any state to whom such offer would be unlawful under the laws or securities regulations of such state. Neither the delivery of this prospectus nor any sale made in connection with this prospectus shall, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus or that the information contained by reference to this prospectus is correct as of any time after its date.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including our financial statements and the related notes and the information set forth under the headings "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case included elsewhere in this prospectus.

References in this prospectus to "Cellectar" 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 Therapeutics, Inc. prior to the Acquisition and references to "we" "us" or "the Company" relate to the activities and obligations of the combined company following the Acquisition.

Overview

Our Business

On April 8, 2011, Novelos Therapeutics, Inc. ("we, the "Company", "Novelos") completed 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"). Following the Acquisition, we are developing novel drugs for the treatment and diagnosis of cancer based on our cancer-targeting technology: CLR1401("COLD"), ¹³¹I-CLR1404 ("HOT", a radiolabeled compound) and ¹²⁴I-CLR1404 ("LIGHT", labeled with a shorter-lived radioisotope, iodine-124). We believe our compounds are selectively taken up and retained in a wide variety of cancer cells (including cancer stem cells) versus normal cells. We believe our compounds directly kill cancer cells while minimizing harm to normal cells, offering the potential for a paradigm shift in cancer therapy by providing efficacy against all three major drivers of mortality in cancer: primary tumors, metastases and cancer stem cell-based relapse. More specifically, we believe our technology enables targeted delivery to cancer cells of apoptosis-inducing Akt inhibition or, when a radioactive molecule is attached, of ionizing radiation sufficient to kill cancer cells. When radiolabeled with iodine-124 for PET imaging, our agent can provide an accurate and quantitative diagnosis of cancer, including metastases, and can also objectively predict and measure therapeutic success. Together, we believe this platform is capable of yielding multiple, distinct oncology product opportunities in a broad spectrum of cancers that would enable us to "find, treat and follow" cancer anywhere in the body in a novel, effective and highly selective way.

COLD is a cancer-targeted chemotherapy that in pre-clinical experiments inhibits the phosphatidylinositol 3-kinase (PI3K)/Akt survival pathway, which is overexpressed in many types of cancer. As a result, COLD selectively inhibits Akt activity, induces caspase-mediated apoptosis and inhibits cell proliferation in cancer cells versus normal cells. COLD also exhibits significant *in vivo* efficacy in mouse xenograft tumor models, including non-small cell lung cancer and triple-negative breast cancers, producing long-lasting tumor growth suppression and significantly increased survival. We believe COLD has the potential to be best-in-class versus other Akt inhibitors in development due to a) cancer cell/cancer stem cell targeting, resulting in cancer-selective inhibition of Akt and cell proliferation or b) suitability for intravenous administration that we believe offers the prospect of greater systemic exposure and hence Akt inhibition in cancer cells, which we believe would result in superior efficacy. We expect to submit an Investigational New Drug ("IND") application to the United States Food and Drug Administration ("FDA") in late 2012.

HOT (iodine-131 radiolabeled compound) is a small-molecule, broad-spectrum, cancer-targeted molecular radiotherapeutic that we believe has first-in-class potential. HOT is comprised of a small quantity of COLD (too little for significant AKT inhibition), acting as a cancer-targeted delivery and retention vehicle, and incorporating a cytotoxic dose of radiotherapy (in the form of iodine-131, a radioisotope that is already in common use to treat thyroid and other cancer types). It is this "intracellular radiation" mechanism of cancer cell killing, coupled with selective delivery to a wide range of malignant tumor types, that imbues HOT with broad-spectrum anti-cancer activity. In 2009, we opened an IND with the FDA to study HOT in humans. In early 2010, we successfully completed a Phase 1a dosimetry trial in humans demonstrating initial safety and establishing dosing parameters for a Phase 1b dose-escalation trial. The Phase 1b dose-escalation trial is aimed at determining the Maximum Tolerated Dose, and we expect it to begin in the third quarter of 2011. In parallel, we expect to initiate Phase 2 efficacy trials in solid tumors in 2012 as soon as a minimal efficacious dose is established. We may determine such an effective dose upon seeing a tumor response in the Phase 1b trial or calculating it from parallel imaging trials in patients (see LIGHT below). Preclinical experiments *in vitro* (in cell culture) and *in vivo* (in animals) have demonstrated selective killing of cancer cells along with a benign safety profile. HOT's anti-tumor/survival-prolonging activities have been demonstrated in over a dozen different xenograft models (human tumor cells implanted into animals) including breast, prostate, lung, glioma (brain), pancreatic, melanoma, ovarian, uterine, renal and colorectal cancers. In all but two models, a single administration of HOT was sufficient for efficacy. In view of HOT's selective uptake and retention in a wide range of solid tumors, its single-agent efficacy in xenograft models and its non-specific mechanism of cancer-killing (radiation), we expect to first develop HOT as a monotherapy, initially for solid tumors.

LIGHT (labeled with a shorter-lived radioisotope, iodine-124) is a small-molecule imaging agent that we believe has first-in-class potential in detecting and quantifying cancerous tumors and metastases. LIGHT is comprised of a small quantity of COLD (too little for Akt inhibition), acting as a cancer-targeted delivery and retention vehicle, and incorporating ¹²⁴I, a relatively new positron emission tomography (PET) imaging isotope. PET imaging used in conjunction with CT scanning has now become the imaging method of choice in oncology. In studies to date, LIGHT selectively illuminated malignant tumors in 52 of 54 animal models of cancer, demonstrating evidence of broad-spectrum, cancer-selective uptake and retention. We expect investigator-sponsored Phase 1/2 trials of LIGHT as a PET imaging agent to begin in the third quarter of 2011. The trials will initially include brain metastases, lung and breast cancers. These human trials, if successful, will serve two important purposes. First, to provide proof-of-concept for LIGHT itself as a PET imaging agent with the potential to supplant the current “gold standard” agent, 18-fluoro-deoxyglucose (FDG), due to what we believe to be LIGHT’s superior cancer-specificity and more favorable logistics of clinical use. Second, to accelerate clinical development of HOT by predicting efficacy and enabling estimation of efficacious doses of HOT for Phase 2 trials.

Reverse Stock Split

At a special meeting of our stockholders held on June 30, 2011, our stockholders approved a proposal to amend our Amended and Restated Certificate of Incorporation, or Charter, to effect a reverse split of our common stock within a range of 1:2 to 1:10 (“the Offering Reverse Split”) in order to satisfy requirements for the listing of our common stock on The NASDAQ Capital Market. The exact ratio will be set within such range in the discretion of our board of directors without further approval or authorization of our stockholders, with our board of directors having the ultimate discretion as to whether or not to proceed with the Offering Reverse Split. Our board of directors has determined that, immediately prior to the effective date of this registration statement of which this prospectus is a part, the shares of our common stock then outstanding will be subject to a reverse split on a one-for- basis.

Recent Developments

On April 8, 2011, we entered into a business combination with Collectar, Inc. (“Collectar”), a privately held Wisconsin corporation that designed and developed products to detect, treat and monitor a wide variety of human cancers, and Cell Acquisition Corp. (the “Merger Subsidiary”), a wholly owned subsidiary of Novelos, pursuant to which Collectar was merged into the Merger Subsidiary (the “Acquisition”).

Immediately prior to the Acquisition, we completed a 1-for-153 reverse split of our common stock (the “April Reverse Split”). We then issued to the former shareholders of Collectar 17,001,596 shares of our common stock as consideration for the Acquisition. The shares issued to Collectar shareholders in the Acquisition constituted approximately 85% of our outstanding common stock after giving effect to the Acquisition. Upon the closing of the Acquisition, we completed the private placement of 6,846,537 shares of our common stock and warrants to purchase an additional 6,846,537 shares of our common stock for gross proceeds of approximately \$5,135,000. As a result of the Acquisition, we are implementing a revised business plan focused on the development of the Collectar compounds. Development of our other compounds (NOV-002 and NOV-205) has been suspended.

Company Information

Our headquarters and manufacturing operation which is compliant with current Good Manufacturing Practices (cGMP) is located at 3301 Agriculture Drive, Madison, WI 53716. Our principal executive offices are located at One Gateway Center, Suite 504, Newton, MA 02458. Our telephone number is (617) 244-1616 and our web address is www.novelos.com. The information included or referred to on, or accessible through, our website does not constitute part of, and is not incorporated by reference into, this prospectus.

The Offering

Proposed Reverse Split

Prior to the effectiveness of the registration statement of which this prospectus is a part, we anticipate that we will effect the Offering Reverse Split within a range of 1:2 to 1:10 in order to satisfy the requirements for our common stock to be listed on The NASDAQ Capital Market. The proposal for the Offering Reverse Split has been approved by our stockholders and our board of directors is authorized to determine the time and ratio at which the reverse split will be effected by filing the appropriate amendment to our certificate of incorporation.

Securities offered by us:

Up to _____ shares of common stock (up to _____ shares if the underwriter exercises its over-allotment option).

Common Stock to be outstanding after this offering:

_____ shares.

Use of Proceeds:

We expect to use the net proceeds received from this offering to fund our research and development activities, including furthering development of LIGHT, HOT and COLD and for general corporate purposes, including capital expenditures, working capital, and, potentially, acquisition activities. For a more complete description of our anticipated use of proceeds from this offering, see "Use of Proceeds."

Risk Factors:

See "Risk Factors" beginning on page 7 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding whether to purchase our securities.

OTC Bulletin Board symbol for our Common Stock

NVLT.OB

Proposed NASDAQ Capital Market listing symbol for our common stock

We intend to apply for listing of our common stock on The NASDAQ Capital Market under the symbol "NVLT". No assurance can be given that our application will be approved.

The number of shares of our common stock to be outstanding after this offering is based on 26,826,157 shares of common stock outstanding as of June 29, 2011 and excludes, as of that date:

- an aggregate of 3,625,559 shares of common stock issuable upon the exercise of outstanding stock options issued to employees, directors and consultants, including under our 2006 Stock Incentive Plan;
- an aggregate of 3,374,727 additional shares of common stock reserved for future issuance under our 2006 Stock Incentive Plan;
- an aggregate of 7,039,468 additional shares of common stock reserved for issuance under outstanding warrant agreements entered into in connection with the private placement of our securities completed on April 8, 2011 expiring on March 31, 2016 at an exercise price of \$0.75 per share; and
- an aggregate of 287,854 additional shares of common stock reserved for issuance under various outstanding warrant agreements, with expiration dates between May 7, 2012 and December 31, 2016, at exercise prices ranging from \$0.75 to \$191.25.

Unless we specifically state otherwise, the share information in this prospectus is as of June 29, 2011 and reflects or assumes no exercise of outstanding options or warrants to purchase shares of our common stock.

Since the former stockholders of Collectar retained the majority voting interest in the combined business following the Acquisition, the Acquisition has been accounted for as a reverse acquisition whereby Collectar, Inc. is treated as the acquirer for accounting and financial reporting purposes. As such, the historical financial information presented in this prospectus represents the historical financial information of Collectar.

Summary Historical Financial Information

The following table summarizes our financial data. We have derived the following summary of our statements of operations data for the three months ended March 31, 2011 and 2010 from our unaudited financial statements appearing elsewhere in this prospectus. We have derived the following summary of our statements of operations data for the fiscal years ended December 31, 2010 and 2009 from our audited financial statements appearing elsewhere in this prospectus. The following summary of our financial data set forth below should be read together with our financial statements and the related notes to those statements, as well as the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations," appearing elsewhere in this prospectus.

| | Three Months Ended March 31, | | Year Ended December 31, | |
|--|---------------------------------|--------------|----------------------------|--------------|
| | 2011 | 2010 | 2010 | 2009 |
| Statement of Operations Data: | | | | |
| Research and development costs | \$ 471,404 | \$ 1,136,973 | \$ 2,984,207 | \$ 4,351,983 |
| General and administrative costs | 382,160 | 356,439 | 1,209,474 | 1,824,302 |
| Total costs and expenses | 853,564 | 1,493,412 | 4,193,681 | 6,176,285 |
| Other income (expense) | (111,688) | (282,987) | (366,582) | (43,588) |
| Net loss attributable to common stockholders | (965,252) | (1,776,399) | (4,560,263) | (6,219,873) |
| Balance Sheet Data: | | | | |
| Current assets | 909,292 | 3,058,666 | 1,279,781 | 1,604,751 |
| Working capital (deficit) | (855,689) | 2,022,042 | 374,964 | 696,430 |
| Total assets | 4,288,354 | 7,177,021 | 4,802,142 | 5,824,706 |
| Long term debt, including current portion | 3,796,730 | 3,540,899 | 3,846,728 | 866,532 |
| Total stockholders' equity (deficit) | (773,028) | 2,683,946 | 133,762 | 4,126,893 |

Summary Pro Forma Financial Information

The following table summarizes certain pro forma statement of operations and balance sheet data to give effect for the Acquisition and the private placement of our securities that occurred immediately following the Acquisition as though it occurred at the beginning of the periods presented, for the purpose of statement of operations data, and on March 31, 2011, for the purpose of balance sheet data. We have derived the following summary pro forma financial information from the unaudited pro forma financial statement data appearing elsewhere in this prospectus and the below information should be read together with the unaudited pro forma information.

| | Three Months Ended March 31, 2011 2011 | Year Ended December 31, 2010 |
|--|---|---|
| Pro Forma Statement of Operations Data: | | |
| Revenue | \$ 8,333 | \$ 33,334 |
| Research and development costs | 1,004,090 | 5,982,191 |
| General and administrative costs | 544,690 | 4,068,500 |
| Total costs and expenses | 1,548,780 | 10,050,691 |
| Other income (expense) | 171,838 | 7,076,726 |
| Net loss attributable to common stockholders | (1,368,609) | (4,405,631) |
| Pro Forma Balance Sheet Data: | | |
| Current assets | \$ 5,787,434 | |
| Working capital (deficit) | (4,759,658) | |
| Total assets | 11,121,710 | |
| Long term debt, including current portion | 450,900 | |
| Total stockholders' equity | 9,160,185 | |

RISK FACTORS

Investing in our securities involves a high degree of risk. Before you invest in our securities, you should be aware that our business faces numerous financial and market risks, including those described below, as well as general economic and business risks. The following discussion provides information concerning the material risks and uncertainties that we have identified and believe may adversely affect our business, financial condition and results of operations. Before you decide whether to invest in our securities, you should carefully consider these risks and uncertainties, together with all of the other information included in this prospectus.

Risks Related to Our Business and Industry

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 March 31, 2011, the pro-forma combined cash balance of Novelos and Collectar was approximately \$1,330,000. Following the Acquisition, on April 8, 2011, we completed a private placement of common stock and warrants for gross proceeds of \$5,135,000. We believe our cash on hand, together with the proceeds from this offering, would be adequate to fund operations for eighteen months following this offering. We have expended and expect to continue to expend substantial funds on the research, development and clinical and pre-clinical testing of our drug compounds. We will require additional funds to conduct research and development, establish and conduct clinical and pre-clinical trials, establish commercial-scale manufacturing arrangements and provide for the marketing and distribution of our products. 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 plan to actively pursue financing alternatives, but there can be no assurance that we will obtain the necessary funding or that it will be available on a timely basis or upon terms acceptable to us.

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 pre-clinical 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;
- our status as a Bulletin Board-listed company and the prospects for our stock being listed 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 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 which will generate product or licensing revenues. We do not expect to have any marketable 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 pre-clinical 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. Eventual profitability will depend on our success in developing, manufacturing, and marketing our product candidates. Collectar has experienced net losses and negative cash flows from operating activities since inception and we expect such losses and negative cash flows to continue in the foreseeable future. As of December 31, 2009 and 2010 and as of March 31, 2011, Collectar had working capital (deficit) of \$696,430, \$374,964, and \$(855,689), respectively, and stockholders' equity (deficit) of \$4,126,893, \$133,762, and \$(773,028), respectively. For the period from Collectar's inception in November 2002 through March 31, 2011, the years ended December 31, 2009 and 2010, and for the three months ended March 31, 2011, Collectar incurred net losses of \$(25,010,256), \$(6,219,873), \$(4,560,263), and \$(965,252), respectively. We may never achieve profitability.

We were recently a defendant in a securities fraud class action lawsuit that was dismissed without prejudice, and we are defending counterclaims in another lawsuit that we initiated. If we are not successful in defending claims against us, the resulting liability could be substantial.

A putative class action complaint was filed on March 5, 2010 in the U.S. District Court for the District of Massachusetts by an alleged shareholder on behalf of himself and all others who purchased or otherwise acquired our common stock in the period between December 14, 2009 and February 24, 2010, against us and our President and Chief Executive Officer, Harry S. Palmin. The complaint claims, among other things, that the defendants violated Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder in connection with alleged misleading disclosures related to the progress of the Phase 3 trial of NOV-002 in advanced non-small cell lung cancer. On June 23, 2011, the case was dismissed without prejudice. Because the dismissal was without prejudice, the plaintiffs could reinstitute the proceeding by filing an amended complaint.

In addition, on June 28, 2010, we received a letter from counsel to ZAO BAM and ZAO BAM Research Laboratories (Russian companies, collectively referred to as "BAM") alleging that we modified the chemical composition of NOV-002 without prior notice to or approval from BAM, constituting a material breach of a technology and assignment agreement we had entered into with BAM on June 20, 2000 (the "June 2000 Agreement"). On September 24, 2010, we filed a complaint in Suffolk Superior Court seeking a declaratory judgment by the court that the June 2000 Agreement has been replaced by a subsequent agreement between the parties dated April 1, 2005 (the "April 2005 Agreement"), that Novelos' obligations to BAM are governed solely by the April 2005 Agreement and that the obligations of the June 2000 Agreement have been performed and fully satisfied. BAM answered the complaint, denying the material allegations, and stating its affirmative defenses and certain counterclaims. In June 2011, BAM filed an amended counterclaim alleging additional claims related to Novelos' acquisition of Collectar. On June 15, 2011, we filed our response to their amended counterclaim and a motion for judgment on the pleadings.

While we intend to vigorously defend ourselves in these actions, the uncertainties of litigation and the uncertainties related to insurance coverage and collection as well as the actual value of claims make it difficult to accurately predict the financial effect these claims may ultimately have on us. We may not be successful in defending such claims, and the resulting liability could be substantial and may not be covered by insurance. In addition, the lawsuits divert management's attention and resources, whether or not the claims are ultimately successful, and this could adversely affect our business. As a result, there can be no assurance as to the long-term effect litigation will have on our business, prospects, financial condition or results of operations.

At present, our success depends solely on the successful commercialization of Collectar compounds.

Prior to the Acquisition on April 8, 2011, Novelos had been developing oxidized glutathione-based compounds for the treatment of cancer, including NOV-002, an injectable small-molecule compound based on a proprietary formulation of oxidized glutathione that Novelos had been developing for use in combination with standard of care chemotherapies for the treatment of solid tumors, and NOV-205, a hepatoprotective agent with immunomodulating and anti-inflammatory properties.

Following the Acquisition, development of NOV-002 and NOV-205 has been suspended and we are now developing novel drugs for the treatment and diagnosis of cancer based on the cancer-targeting technologies of Collectar: CLR1401 ("COLD"), ¹³¹I-CLR1404 ("HOT", a radiolabeled compound) and ¹²⁴I-CLR1404 ("LIGHT", labeled with a shorter-lived radioisotope, iodine-124). As a result the successful commercialization of HOT, COLD and LIGHT is crucial for our success. Our proposed products and their potential applications are in an early stage of clinical and manufacturing/process development and face a variety of risks and uncertainties. Principally, these risks include the following:

- future clinical trial results may show that the cancer-targeting technologies of Collectar are not well tolerated by recipients at its effective doses or are not efficacious;
- future clinical trial results may be inconsistent with Collectar's previous preliminary testing results and data from Collectar's earlier studies may be inconsistent with clinical data;
- even if the cancer-targeting technologies of Collectar are shown to be safe and effective for their intended purposes, we may face significant or unforeseen difficulties in obtaining or manufacturing sufficient quantities at reasonable prices or at all;
- our ability to complete the development and commercialization of the cancer-targeting technologies of Collectar for our intended use is substantially dependent upon our ability to obtain and maintain experienced and committed partners to assist us with obtaining clinical and regulatory approvals for, and the manufacturing, marketing and distribution of, our products;
- even if the cancer-targeting technologies of Collectar are successfully developed, commercially produced and receive all necessary regulatory approvals, there is no guarantee that there will be market acceptance of our products; and
- our competitors may develop therapeutics or other treatments which are superior or less costly than our own with the result that our product candidates, even if they are successfully developed, manufactured and approved, may not generate sufficient revenues to offset the development and manufacturing costs of our product candidates.

If we are unsuccessful in dealing with any of these risks, or if we are unable to successfully commercialize the cancer-targeting technologies of Collectar for some other reason, our business, prospects, financial condition, and results of operations may be adversely affected.

The integration of Novelos and Collectar may be costly and difficult.

The successful integration of independent businesses or assets can be a complex, costly and time-consuming process. The difficulties of integrating Novelos and Collectar include, among others:

- consolidating research and development operations;
- preserving important research and development, manufacturing and supply, and other relationships;
- minimizing the diversion of management's attention from ongoing business concerns;
- coordinating geographically separate organizations; and
- optimizing the functioning of a newly constituted Board of Directors.

We may not accomplish the integration of Novelos and Collectar smoothly or successfully. The diversion of the attention of our management from current operations to integration efforts and any difficulties encountered in combining operations could prevent the combined company from realizing the full benefits anticipated to result from the Acquisition and may adversely affect the combined business. Additionally, the costs associated with the integration of Novelos and Collectar may be significant. To the extent that we incur integration costs that are not anticipated, these unexpected costs could adversely impact our liquidity and force us to seek additional funding sooner than would otherwise be necessary.

We have a history of recurring losses and an accumulated deficit which, among other factors, raise substantial doubt about our ability to continue as a going concern, which may hinder our ability to obtain future financing.

Our financial statements as of December 31, 2010 included elsewhere in this prospectus were prepared under the assumption that we will continue as a going concern. The independent registered public accounting firm that audited our 2010 financial statements, in their report, included an explanatory paragraph referring to our recurring losses from operations and expressing substantial doubt in our ability to continue as a going concern without additional capital becoming available. Our financial statements do not include any adjustments that might result from the outcome of this uncertainty. Our ability to continue as a going concern depends on our ability to obtain additional equity or debt financing, attain further operating efficiencies, reduce expenditures, and, ultimately, to generate revenue.

The failure to complete development of our therapeutic technology, to obtain government approvals, including required FDA approvals, or to comply with ongoing governmental regulations could prevent, delay or limit introduction or sale of proposed products and result in failure to achieve revenues or maintain our ongoing business.

Our research and development activities and the manufacture and marketing of our intended products are subject to extensive regulation for safety, efficacy and quality by numerous government authorities in the U.S. and abroad. Before receiving clearance to market our proposed products by the FDA, we will have to demonstrate that our products are safe and effective for the patient population for the diseases that are to be treated. Clinical trials, manufacturing and marketing of drugs are subject to the rigorous testing and approval process of the FDA and equivalent foreign regulatory authorities. The Federal Food, Drug and Cosmetic Act and other federal, state and foreign statutes and regulations govern and influence the testing, manufacturing, labeling, advertising, distribution and promotion of drugs and medical devices. As a result, clinical trials and regulatory approval can take many years to accomplish and require the expenditure of substantial financial, managerial and other resources.

In order to be commercially viable, we must successfully research, develop, obtain regulatory approval for, manufacture, introduce, market and distribute our technologies. This includes meeting a number of critical developmental milestones including:

- demonstrating benefit from delivery of each specific drug for specific medical indications;
- demonstrating through pre-clinical and clinical trials that each drug is safe and effective; and
- demonstrating that we have established viable Good Manufacturing Practices capable of potential scale-up.

The timeframe necessary to achieve these developmental milestones may be long and uncertain, and we may not successfully complete these milestones for any of our intended products in development.

In addition to the risks previously discussed, our technology is subject to developmental risks that include the following:

- uncertainties arising from the rapidly growing scientific aspects of drug therapies and potential treatments;
- uncertainties arising as a result of the broad array of alternative potential treatments related to cancer and other diseases; and
- anticipated expense and time believed to be associated with the development and regulatory approval of treatments for cancer and other diseases.

In order to conduct the clinical trials that are necessary to obtain approval by the FDA to market a product, it is necessary to receive clearance from the FDA to conduct such clinical trials. The FDA can halt clinical trials at any time for safety reasons or because we or our clinical investigators do not follow the FDA's requirements for conducting clinical trials. If we are unable to receive clearance to conduct clinical trials for a product, or the trials are halted by the FDA, we will not be able to achieve any revenue from such product in the U.S. as it is illegal to sell any drug for use in humans in the U.S. without FDA approval.

Even if we do ultimately receive FDA approval for any of our products, these products will be subject to extensive ongoing regulation, including regulations governing manufacturing, labeling, packaging, testing, dispensing, prescription and procurement quotas, record keeping, reporting, handling, shipment and disposal of any such drug. Failure to obtain and maintain required registrations or to comply with any applicable regulations could further delay or preclude development and commercialization of our drugs and subject us to enforcement action.

Clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

In order to receive regulatory approval for the commercialization of our product candidates, we must conduct, at our own expense, extensive clinical trials to demonstrate safety and efficacy of these product candidates. Clinical testing is expensive, it can take many years to complete and its outcome is uncertain. Failure can occur at any time during the clinical trial process.

We may experience delays in clinical testing of our product candidates. We do not know whether planned clinical trials will begin on time, will need to be redesigned or will be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including delays in obtaining regulatory approval to commence a trial, in reaching agreement on acceptable clinical trial terms with prospective sites, in obtaining institutional review board approval to conduct a trial at a prospective site, in recruiting patients to participate in a trial or in obtaining sufficient supplies of clinical trial materials. Many factors affect patient enrollment, including the size of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, competing clinical trials and new drugs approved for the conditions we are investigating. Prescribing physicians will also have to decide to use our product candidates over existing drugs that have established safety and efficacy profiles. Any delays in completing our clinical trials will increase our costs, slow down our product development and approval process and delay our ability to generate revenue.

In addition, the results of preclinical studies and early clinical trials of our product candidates do not necessarily predict the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through initial clinical testing. The data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application or to obtain regulatory approval in the United States or elsewhere. Because of the uncertainties associated with drug development and regulatory approval, we cannot determine if or when we will have an approved product for commercialization or achieve sales or profits.

Our clinical trials may not demonstrate sufficient levels of efficacy necessary to obtain the requisite regulatory approvals for our drugs, and our proposed drugs may not be approved for marketing. As discussed elsewhere in this prospectus, we suffered significant setbacks in the development of NOV-002 and NOV-205, as some of the promising results of earlier trials were not demonstrated in later stage trials. As a result, following the Acquisition, development of these compounds has been suspended.

We may be required to suspend or discontinue clinical trials due to unexpected side effects or other safety risks that could preclude approval of our product candidates.

Our clinical trials may be suspended at any time for a number of reasons. For example, we may voluntarily suspend or terminate our clinical trials if at any time we believe that they present an unacceptable risk to the clinical trial patients. In addition, regulatory agencies may order the temporary or permanent discontinuation of our clinical trials at any time if they believe that the clinical trials are not being conducted in accordance with applicable regulatory requirements or that they present an unacceptable safety risk to the clinical trial patients.

Administering any product candidates to humans may produce undesirable side effects. These side effects could interrupt, delay or halt clinical trials of our product candidates and could result in the FDA or other regulatory authorities denying further development or approval of our product candidates for any or all targeted indications. Ultimately, some or all of our product candidates may prove to be unsafe for human use. Moreover, we could be subject to significant liability if any volunteer or patient suffers, or appears to suffer, adverse health effects as a result of participating in our clinical trials.

We have limited in-house research and manufacturing capacity and rely, to some extent, on research and manufacturing facilities at various universities, hospitals, contract research organizations and contract manufacturers for a portion of our research, development, and manufacturing. In the event we exceed our in-house capacity or lose access to those facilities, our ability to gain FDA approval and commercialization of our drug delivery technology and products could be delayed or impaired.

We remain in the research and development and clinical and pre-clinical trial phase of product commercialization and have limited experience in establishing, supervising and conducting commercial manufacturing. Accordingly, if our products are approved for commercial sale, we will need to establish the capability to commercially manufacture our products in accordance with FDA and other regulatory requirements.

At the present time, we have limited research, development or manufacturing capabilities within our facilities. Our manufacturing facility in Madison, WI has adequate capacity to supply drug product for Phase 2 studies of HOT, but we will need to expand for larger Phase 3 studies. We are exploring scaling up production capacity of COLD, via contract manufacturers or at our facility, to support an IND filing and clinical trials. LIGHT is manufactured by our collaborator, the University of Wisconsin at Madison. Therefore, we rely and expect to continue to rely, to some extent, on contracting with third parties to use their facilities to conduct research, development and manufacturing. The limited facilities of our own in which to conduct research, development and manufacturing may delay or impair our ability to gain FDA approval and commercialization of our drug delivery technology and products.

We may rely on third-party contract research organizations, service providers and suppliers to support development and clinical testing of our products. This may expose us to the risks of not being able to directly oversee the production and quality of the manufacturing process. Furthermore, these contractors, whether foreign or domestic, may experience regulatory compliance difficulties, mechanical shutdowns, employee strikes or other unforeseeable acts that may delay production. Failure of any of these contractors to provide the required services in a timely manner or on commercially reasonable terms could materially delay the development and approval of our products, increase our expenses and materially harm our business, prospects, financial condition and results of operations.

We believe that we have a good working relationship with our contractors. However, should the situation change, we may be required to relocate these activities on short notice, and we do not currently have access to alternate facilities to which we could relocate our research, development and/or manufacturing activities. The cost and time to establish or locate an alternate research, development and/or manufacturing facility to develop our technology would be substantial and would delay obtaining FDA approval and commercializing our products.

We are exposed to product, clinical and preclinical liability risks that could create a substantial financial burden should we be sued.

Our business exposes us to potential product liability and other liability risks that are inherent in the testing, manufacturing and marketing of pharmaceutical products. In addition, the use, in our clinical trials, of pharmaceutical products that we or our current or potential collaborators may develop and then subsequently sell may cause us to bear a portion of or all product liability risks. While we carry an insurance policy covering up to \$5,000,000 per occurrence and \$5,000,000 in the aggregate of liability incurred in connection with such claims should they arise, there can be no assurance that our insurance will be adequate to cover all situations. Moreover, there can be no assurance that such insurance, or additional insurance, if required, will be available in the future or, if available, will be available on commercially reasonable terms. Furthermore, our current and potential partners with whom we have collaborative agreements or our future licensees may not be willing to indemnify us against these types of liabilities and may not themselves be sufficiently insured or have a net worth sufficient to satisfy any product liability claims. A successful product liability claim or series of claims brought against us could have a material adverse effect on our business, prospects, financial condition and results of operations.

Acceptance of our products in the marketplace is uncertain and failure to achieve market acceptance will prevent or delay our ability to generate revenues.

Our future financial performance will depend, at least in part, on the introduction and customer acceptance of our proposed products. Even if approved for marketing by the necessary regulatory authorities, our products may not achieve market acceptance. The degree of market acceptance will depend on a number of factors including:

- receiving regulatory clearance of marketing claims for the uses that we are developing;
- establishing and demonstrating the advantages, safety and efficacy of our technologies;
- pricing and reimbursement policies of government and third-party payers such as insurance companies, health maintenance organizations and other health plan administrators;
- our ability to attract corporate partners, including pharmaceutical companies, to assist in commercializing our intended products; and
- our ability to market our products.

Physicians, patients, payers or the medical community in general may be unwilling to accept, use or recommend any of our products. If we are unable to obtain regulatory approval or commercialize and market our proposed products as planned, we may not achieve any market acceptance or generate revenue.

We may face litigation from third parties who claim that our products infringe on their intellectual property rights, particularly because there is often substantial uncertainty about the validity and breadth of medical patents.

We may be exposed to future litigation by third parties based on claims that our technologies, products or activities infringe on the intellectual property rights of others or that we have misappropriated the trade secrets of others. This risk is exacerbated by the fact that the validity and breadth of claims covered in medical technology patents and the breadth and scope of trade-secret protection involve complex legal and factual questions for which important legal principles are unresolved. Any litigation or claims against us, whether or not valid, could result in substantial costs, could place a significant strain on our financial and managerial resources and could harm our reputation. Most of our license agreements would likely require that we pay the costs associated with defending this type of litigation. In addition, intellectual property litigation or claims could force us to do one or more of the following:

- cease selling, incorporating or using any of our technologies and/or products that incorporate the challenged intellectual property, which would adversely affect our ability to generate revenue;
- obtain a license from the holder of the infringed intellectual property right, which license may be costly or may not be available on reasonable terms, if at all; or
- redesign our products, which would be costly and time-consuming.

If we are unable to protect or enforce our rights to intellectual property adequately or to secure rights to third-party patents, we may lose valuable rights, experience reduced market share, assuming any, or incur costly litigation to protect our intellectual property rights.

Our ability to obtain licenses to patents, maintain trade secret protection and operate without infringing the proprietary rights of others will be important to commercializing any products under development. Therefore, any disruption in access to the technology could substantially delay the development of our technology.

The patent positions of biotechnology and pharmaceutical companies, such as ours, that involve licensing agreements, are frequently uncertain and involve complex legal and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued or in subsequent legal proceedings. Consequently, our patent applications and any issued and licensed patents may not provide protection against competitive technologies or may be held invalid if challenged or circumvented. Our competitors may also independently develop products similar to ours or design around or otherwise circumvent patents issued or licensed to us. In addition, the laws of some foreign countries may not protect our proprietary rights to the same extent as U.S. law.

We also rely on trade secrets, technical know-how and continuing technological innovation to develop and maintain our competitive position. Although we generally require our employees, consultants, advisors and collaborators to execute appropriate confidentiality and assignment-of-inventions agreements, our competitors may independently develop substantially equivalent proprietary information and techniques, reverse engineer our information and techniques, or otherwise gain access to our proprietary technology. We may be unable to meaningfully protect our rights in trade secrets, technical know-how and other non-patented technology.

We may have to resort to litigation to protect our rights for certain intellectual property, or to determine their scope, validity or enforceability. Enforcing or defending our rights is expensive, could cause diversion of our resources and may not prove successful. Any failure to enforce or protect our rights could cause us to lose the ability to exclude others from using our technology to develop or sell competing products.

Confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information and may not adequately protect our intellectual property, which could limit our ability to compete.

We operate in the highly technical field of research and development of small molecule drugs, and rely in part on trade secret protection in order to protect our proprietary trade secrets and unpatented know-how. However, trade secrets are difficult to protect, and we cannot be certain that our competitors will not develop the same or similar technologies on their own. We have taken steps, including entering into confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors, to protect our trade secrets and unpatented know-how. These agreements generally require that the other party keep confidential and not disclose to third parties all confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. We also typically obtain agreements from these parties which provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, these agreements may not be honored and may not effectively assign intellectual property rights to us. Enforcing a claim that a party has illegally obtained and is using our trade secrets or know-how is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets or know-how. The failure to obtain or maintain trade secret protection could adversely affect our competitive position.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

As is common in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that we or these employees have used or disclosed trade secrets or other proprietary information of their former employers, either inadvertently or otherwise. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

The use of hazardous materials, including radioactive materials, in our research and development imposes certain compliance costs on us and may subject us to liability for claims arising from the use or misuse of these materials.

Our research and development, manufacturing and administration of our drugs involves the controlled use of hazardous materials, including chemicals and radioactive materials, such as radioactive isotopes. We are subject to federal, state and local laws and regulations governing the storage, use and disposal of these materials and some waste products and are required to maintain both a manufacturer's license and a radioactive materials license with State of Wisconsin agencies. We believe that our safety procedures for the storage, use and disposal of these materials comply with the standards prescribed by federal, state and local regulations. However, we cannot completely eliminate the risk of accidental contamination or injury from these materials. If there were to be an accident, we could be held liable for any damages that result, which could exceed our financial resources. We currently maintain insurance coverage for injuries resulting from the hazardous materials we use; however, future claims may exceed the amount of our coverage. Also, we do not have insurance coverage for pollution cleanup and removal. Currently the costs of complying with federal, state and local regulations are not significant, and consist primarily of waste disposal expenses and permitting fees. However, they could become expensive, and current or future environmental regulations may impair our research, development, production and commercialization efforts. If we are unable to maintain the required licenses and permits for any reason, it will negatively impact our research and development activities.

Due to our limited marketing, sales and distribution experience, we may be unsuccessful in our efforts to sell our products, enter into relationships with third parties or develop a direct sales organization.

We have not established marketing, sales or distribution capabilities for our proposed products. Until such time as our products are further along in the development process, we will not devote any meaningful time and resources to this effort. At the appropriate time, we intend to develop our own sales and marketing capabilities or enter into agreements with third parties to sell our products.

We have limited experience in developing, training or managing a sales force. If we choose to establish a direct sales force, we may incur substantial additional expenses in developing, training and managing such an organization. We may be unable to build a sales force on a cost-effective basis or at all. Any such direct marketing and sales efforts may prove to be unsuccessful. In addition, we will compete with many other companies that currently have extensive marketing and sales operations. Our marketing and sales efforts may be unable to compete against these other companies. We may be unable to establish a sufficient sales and marketing organization on a timely basis, if at all.

If we choose to enter into agreements with third parties to sell our products, we may be unable to establish or maintain third-party relationships on a commercially reasonable basis, if at all. In addition, these third parties may have similar or more established relationships with our competitors.

We may be unable to engage qualified distributors. Even if engaged, these distributors may:

- fail to adequately market our products;
- fail to satisfy financial or contractual obligations to us;
- offer, design, manufacture or promote competing products; or
- cease operations with little or no notice.

If we fail to develop sales, marketing and distribution channels, we would experience delays in product sales and incur increased costs, which would have a material adverse effect on our business, prospects, financial condition, and results of operation.

If we are unable to convince physicians of the benefits of our intended products, we may incur delays or additional expense in our attempt to establish market acceptance.

Achieving broad use of our products may require physicians to be informed regarding these products and their intended benefits. The time and cost of such an educational process may be substantial. Inability to successfully carry out this physician education process may adversely affect market acceptance of our products. We may be unable to timely educate physicians regarding our intended products in sufficient numbers to achieve our marketing plans or to achieve product acceptance. Any delay in physician education may materially delay or reduce demand for our products. In addition, we may expend significant funds towards physician education before any acceptance or demand for our products is created, if at all.

The market for our products is rapidly changing and competitive, and new therapeutics, new drugs and new treatments that may be developed by others could impair our ability to maintain and grow our business and remain competitive.

The pharmaceutical and biotechnology industries are subject to rapid and substantial technological change. Developments by others may render our technologies and intended products noncompetitive or obsolete, or we may be unable to keep pace with technological developments or other market factors. Technological competition from pharmaceutical and biotechnology companies, universities, governmental entities and others diversifying into the field is intense and is expected to increase. Most of these entities have significantly greater research and development capabilities and budgets than we do, as well as substantially more marketing, manufacturing, financial and managerial resources. These entities represent significant competition for us. Acquisitions of, or investments in, competing pharmaceutical or biotechnology companies by large corporations could increase our competitors' financial, marketing, manufacturing and other resources.

We operate with limited day-to-day business management, serve as a vehicle to hold certain technology for possible future exploration, and have been and will continue to be engaged in the development of new drugs and therapeutic technologies. As a result, our resources are limited and we may experience management, operational or technical challenges inherent in such activities and novel technologies. Competitors have developed or are in the process of developing technologies that are, or in the future may be, the basis for competition. Some of these technologies may accomplish therapeutic effects similar to those of our technology, but through different means. Our competitors may develop drugs and drug delivery technologies that are more effective than our intended products and, therefore, present a serious competitive threat to us.

The potential widespread acceptance of therapies that are alternatives to ours may limit market acceptance of our products even if they are commercialized. Many of our targeted diseases and conditions can also be treated by other medication or drug delivery technologies. These treatments may be widely accepted in medical communities and have a longer history of use. The established use of these competitive drugs may limit the potential for our technologies and products to receive widespread acceptance if commercialized.

If users of our products are unable to obtain adequate reimbursement from third-party payers, or if additional healthcare reform measures are adopted, it could hinder or prevent our product candidates' commercial success.

The continuing efforts of government and insurance companies, health maintenance organizations and other payers of healthcare costs to contain or reduce costs of healthcare may adversely affect our ability to generate future revenues and achieve profitability, including by limiting the future revenues and profitability of our potential customers, suppliers and collaborative partners. For example, in certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. The U.S. government and other governments have shown significant interest in pursuing healthcare reform. Any government-adopted reform measures could adversely affect the pricing of healthcare products and services in the U.S. or internationally and the amount of reimbursement available from governmental agencies or other third-party payers. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations and other payers of healthcare services to contain or reduce healthcare costs may adversely affect our ability to set prices for our products, should we be successful in commercializing them, and this would negatively affect our ability to generate revenues and achieve and maintain profitability.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and decisions, that relate to healthcare availability, methods of delivery or payment for healthcare products and services, or sales, marketing or pricing of healthcare products and services, also may limit our potential revenue and may require us to revise our research and development programs. The pricing and reimbursement environment may change in the future and become more challenging for several reasons, including policies advanced by the current or future executive administrations in the U.S., new healthcare legislation or fiscal challenges faced by government health administration authorities. Specifically, in both the U.S. and some foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our products profitably. In the U.S., changes in federal healthcare policy were passed into law in 2010 and are being considered by Congress again this year. Some of these proposed reforms could result in reduced reimbursement rates for our product candidates, which would adversely affect our business strategy, operations and financial results.

Our ability to commercialize our products will depend in part on the extent to which appropriate reimbursement levels for the cost of our products and related treatment are obtained by governmental authorities, private health insurers and other organizations, such as health maintenance organizations (HMOs). Third-party payers are increasingly challenging the prices charged for medical drugs and services. Also, the trend toward managed healthcare in the U.S. and the concurrent growth of organizations such as HMOs that could control or significantly influence the purchase of healthcare services and drugs, as well as legislative proposals to reform healthcare or change government insurance programs, may all result in lower prices for or rejection of our drugs. The cost containment measures that healthcare payers and providers are instituting and the effect of any healthcare reform could materially harm our ability to operate profitably.

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 chief executive officer, Harry Palmin, Collectar founder and our chief scientific officer, Jamey Weichert and our senior vice president of research and development, Christopher Pazoles. There can be no assurance that these individuals will continue to provide services to us. 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.

Risks Related to our Common Stock

Our stock price has experienced price fluctuations.

There can be no assurance that the market price for our common stock will remain at its current level and a decrease in the market price could result in substantial losses for investors. The market price of our common stock may be significantly affected by one or more of the following factors:

- announcements or press releases relating to the biopharmaceutical sector or to our own business or prospects;
- regulatory, legislative, or other developments affecting us or the healthcare industry generally;
- sales by holders of restricted securities pursuant to effective registration statements or exemptions from registration; and
- market conditions specific to biopharmaceutical companies, the healthcare industry and the stock market generally.

Our five largest stockholders own approximately 54% of our outstanding common stock, which limits the influence of other shareholders.

As of June 24, 2011, 54% of our outstanding common stock is controlled by our five largest shareholders, all of whom are former shareholders of Collectar. The interests of these stockholders may differ from those of other stockholders. These stockholders will likely continue to have the ability to significantly affect the outcome of all corporate actions requiring stockholder approval, including the following actions:

- the election of directors;
- the amendment of charter documents; and
- the approval of certain mergers and other significant corporate transactions, including a sale of substantially all of our assets.

There may be a limited public market for our securities; we presently fail to qualify for listing on any national securities exchanges.

Our common stock currently does not meet the requirements for initial listing on a registered stock exchange. Trading in our common stock continues to be conducted on the electronic bulletin board in the over-the-counter market. As a result, an investor may find it difficult to dispose of or to obtain accurate quotations as to the market value of our common stock, and our common stock may be less attractive for margin loans, for investment by financial institutions, as consideration in future capital raising transactions or other purposes. We intend to apply for listing of our common stock on The NASDAQ Capital Market under the symbol "NVL". No assurance can be given that our application will be approved.

Our common stock constitutes a "penny stock" under SEC rules, which may make it more difficult to resell shares of our common stock.

Our common stock constitutes a "penny stock" under applicable SEC rules. These rules impose additional sales practice requirements on broker-dealers that recommend the purchase or sale of penny stocks to persons other than those who qualify as "established customers" or "accredited investors." For example, broker-dealers must determine the appropriateness for non-qualifying persons of investments in penny stocks and make special disclosures concerning the risks of investments in penny stocks.

Many brokerage firms will discourage or refrain from recommending investments in penny stocks. Most institutional investors will not invest in penny stocks. In addition, many individual investors will not invest in penny stocks due, among other reasons, to the increased financial risk generally associated with these investments. For these reasons, the fact that our common stock is a penny stock may limit the market for our common stock and, consequently, the liquidity of an investment in our common stock. We can give no assurance at what time, if ever, our common stock will cease to be a "penny stock."

If we fail to maintain effective internal controls over financial reporting, the price of our common stock may be adversely affected.

Our internal control over financial reporting may have weaknesses and conditions that could require correction or remediation, the disclosure of which may have an adverse impact on the price of our common stock. We are required to establish and maintain appropriate internal controls over financial reporting. Failure to establish those controls, or any failure of those controls once established, could adversely affect our public disclosures regarding our business, prospects, financial condition or results of operations. In addition, management's assessment of internal controls over financial reporting may identify weaknesses and conditions that need to be addressed in our internal controls over financial reporting or other matters that may raise concerns for investors. Any actual or perceived weaknesses and conditions that need to be addressed in our internal control over financial reporting or disclosure of management's assessment of our internal controls over financial reporting may have an adverse impact on the price of our common stock.

We are required to comply with certain provisions of Section 404 of the Sarbanes-Oxley Act of 2002 and if we fail to comply in a timely manner, our business could be harmed and our stock price could decline.

Rules adopted by the SEC pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 require an annual assessment of internal controls over financial reporting, and for certain issuers an attestation of this assessment by the issuer's independent registered public accounting firm. The standards that must be met for management to assess the internal controls over financial reporting as effective are evolving and complex, and require significant documentation, testing, and possible remediation to meet the detailed standards. We expect to incur significant expenses and to devote resources to Section 404 compliance on an ongoing basis. It is difficult for us to predict how long it will take or costly it will be to complete the assessment of the effectiveness of our internal control over financial reporting for each year and to remediate any deficiencies in our internal control over financial reporting. As a result, we may not be able to complete the assessment and remediation process on a timely basis. In addition, although attestation requirements by our independent registered public accounting firm are not presently applicable to us we could become subject to these requirements in the future and we may encounter problems or delays in completing the implementation of any resulting changes to internal controls over financial reporting. In the event that our Chief Executive Officer or Chief Financial Officer determine that our internal control over financial reporting is not effective as defined under Section 404, we cannot predict how regulators will react or how the market prices of our shares will be affected; however, we believe that there is a risk that investor confidence and share value may be negatively affected.

Our common stock could be further diluted as the result of the issuance of additional shares of common stock, convertible securities, warrants or options.

In the past, we have issued common stock, convertible securities (such as convertible preferred stock and notes) and warrants in order to raise money. We have also issued options and warrants as compensation for services and incentive compensation for our employees and directors. We have shares of common stock reserved for issuance upon the exercise of certain of these securities and may increase the shares reserved for these purposes in the future. Our issuance of additional common stock, convertible securities, options and warrants could affect the rights of our stockholders, could reduce the market price of our common stock or could result in adjustments to exercise prices of outstanding warrants (resulting in these securities becoming exercisable for, as the case may be, a greater number of shares of our common stock), or could obligate us to issue additional shares of common stock to certain of our stockholders.

Shares eligible for future sale may adversely affect the market.

From time to time, certain of our stockholders may be eligible to sell all or some of their shares of common stock by means of ordinary brokerage transactions in the open market pursuant to Rule 144 promulgated under the Securities Act, subject to certain limitations. In general, pursuant to amended Rule 144, non-affiliate stockholders may sell freely after six months subject only to the current public information requirement. Affiliates may sell after six months subject to the Rule 144 volume, manner of sale (for equity securities), current public information and notice requirements. Of the approximately 26,826,000 shares of our common stock outstanding as of June 24, 2011, approximately 1.1 million shares are freely tradable without restriction, as of June 24, 2011. Any substantial sales of our common stock pursuant to Rule 144 may have a material adverse effect on the market price of our common stock.

Provisions of our charter, bylaws, and Delaware law may make an acquisition of us or a change in our management more difficult.

Certain provisions of our amended restated certificate of incorporation and bylaws could discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions also could limit the price that investors might be willing to pay in the future for shares of our common stock or warrants, thereby depressing the market price of our common stock. Stockholders who wish to participate in these transactions may not have the opportunity to do so.

Furthermore, these provisions could prevent or frustrate attempts by our stockholders to replace or remove our management. These provisions:

- provide for the division of our board into three classes as nearly equal in size as possible with staggered three-year terms and further limit the removal of directors and the filling of vacancies;
- authorize our board of directors to issue without stockholder approval blank check preferred stock that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit stockholder action by written consent;
- establish advance notice requirements for stockholder nominations to our board of directors or for stockholder proposals that can be acted on at stockholder meetings;
- limit who may call stockholder meetings; and
- require the approval of the holders of 75% of the outstanding shares of our capital stock entitled to vote in order to amend certain provisions of our restated certificate of incorporation and restated bylaws.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may, unless certain criteria are met, prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a prescribed period of time.

We have not paid dividends in the past and do not expect to pay dividends for the foreseeable future. Any return on investment may be limited to the value of our common stock.

No cash dividends have been paid on our common stock. We do not expect to pay cash dividends in the near future. Payment of dividends would depend upon our profitability at the time, cash available for those dividends, and other factors as our board of directors may consider relevant. If we do not pay dividends, our common stock may be less valuable because a return on an investor's investment will only occur if our stock price appreciates.

Risks Related to this Offering

Our management team will have immediate and broad discretion over the use of the net proceeds from this offering and we may use the net proceeds in ways with which you disagree.

There is no minimum offering amount required as a condition to closing this offering and therefore net proceeds from this offering will be immediately available to our management to use at their discretion. We currently intend to use the net proceeds from this offering to fund our research and development activities, for general corporate purposes, and possibly for acquisitions of other companies, products or technologies, though no such acquisitions are currently contemplated. See "Use of Proceeds." We have not allocated specific amounts of the net proceeds from this offering for any of the foregoing purposes. Accordingly, our management will have significant discretion and flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for us or our stockholders. The failure of our management to use such funds effectively could have a material adverse effect on our business, prospects, financial condition, and results of operation.

You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.

You will incur immediate and substantial dilution as a result of this offering. After giving effect to the sale by us of up to _____ shares offered in this offering at an assumed public offering price of \$ _____ per share, and after deducting the underwriter's discounts and commissions and estimated offering expenses payable by us, investors in this offering can expect an immediate dilution of \$ _____ per share, or _____ %, at the assumed public offering price. In addition, in the past, we issued options and warrants to acquire shares of common stock. To the extent these options are ultimately exercised, you will sustain future dilution. We may also acquire or license other technologies or finance strategic alliances by issuing equity, which may result in additional dilution to our stockholders.

FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Exchange Act. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements.

In some cases, you can identify forward-looking statements by terminology, such as "expects," "anticipates," "intends," "estimates," "plans," "believes," "seeks," "may," "should", "could" or the negative of such terms or other similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus.

You should read this prospectus and the documents that we reference herein and therein and have filed as exhibits to the registration statement, of which this prospectus is part, completely and with the understanding that our actual future results may be materially different from what we expect. You should assume that the information appearing in this prospectus is accurate as of the date on the front cover of this prospectus or such prospectus supplement only. Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus and any accompanying prospectus supplement, and particularly our forward-looking statements, by these cautionary statements.

USE OF PROCEEDS

Based on an assumed public offering price of \$ per share, we estimate that the net proceeds to us from the sale of the shares that we are offering, assuming gross proceeds of \$ million, will be approximately \$ million, after deducting underwriting discounts and commissions and estimated offering expenses, or approximately \$ if the underwriter's over-allotment is exercised in full.

We may not be successful in selling any or all of the securities offered hereby. Because there is no minimum offering amount required as a condition to closing in this offering, we may sell less than all of the securities offered hereby, which may significantly reduce the amount of proceeds received by us.

We expect to use any proceeds received from this offering as follows:

- to fund our research and development activities, including the further development of our LIGHT, HOT and COLD compounds in a wide range of cancers; and
- for general corporate purposes, such as general and administrative expenses, capital expenditures, working capital, prosecution and maintenance of our intellectual property, and the potential investment in technologies or products that complement our business.

We have no current understandings, commitments or agreements with respect to any acquisition of or investment in any technologies or products.

Pending the application of the net proceeds as described above or otherwise, we may invest the proceeds in short-term, investment-grade, interest-bearing securities or guaranteed obligations of the U.S. government or other securities.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization, each as of March 31, 2011:

- on an actual basis
- pro-forma basis giving effect to the Acquisition, the conversion of convertible debt, the payment of certain long term debt and the private placement occurring on April 8, 2011; and
- on a pro forma as adjusted basis to give effect to the Acquisition, the conversion of convertible debt, the payment of certain long term debt, the private placement occurring on April 8, 2011 and to give further effect to the issuance of the shares offered hereby.

You should consider this table in conjunction with our financial statements and the notes to those financial statements and the pro forma financial information included elsewhere in this prospectus.

| | As of March 31, 2011 | | |
|---|----------------------|---------------|------------------------------|
| | Actual | Pro Forma (1) | Pro Forma As Adjusted (1)(2) |
| Cash and cash equivalents (including restricted cash) | \$ 853,667 | \$ 5,648,767 | \$ |
| Convertible Notes | 2,720,985 | — | |
| Bank Note | 625,745 | — | |
| Wisconsin Department of Commerce Loan | 450,000 | 450,000 | |
| Capital lease obligations | 7,903 | 7,903 | |
| Total debt obligations | 3,804,633 | 457,903 | |
| Stockholders' equity (deficit): | | | |
| Common stock, par value \$0.001 per share: 150,000,000 shares authorized; 12,820,102 issued as of March 31, 2011 | | 128 | 268 |
| Additional paid in capital | 24,237,100 | 34,878,146 | |
| Deficit accumulated during the development stage | (25,010,256) | (25,718,229) | |
| Total stockholders' equity (deficit) | (773,028) | 9,160,185 | |

| | | | |
|----------------------|---------------------|---------------------|-----------|
| Total capitalization | <u>\$ 3,031,605</u> | <u>\$ 9,618,088</u> | <u>\$</u> |
|----------------------|---------------------|---------------------|-----------|

- (1) Adjusted for the Acquisition, the private placement that occurred immediately after the Acquisition and the conversion of convertible securities and payment of certain long term debt that occurred immediately prior to the Acquisition.
- (2) Assumes that \$ million of our shares is sold in this offering at an assumed offering price of \$ per share and that the net proceeds thereof are approximately \$ million after deducting underwriting discounts and commissions and our estimated offering expenses.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Market Information

Our common stock has been quoted on the OTC Bulletin Board under the symbol “NVL” since June 14, 2005. The following table provides, for the periods indicated, the range of high and low bid prices for our common stock. These over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions.

| Fiscal Year 2009 | High | Low |
|--|-----------|----------|
| First Quarter | \$ 91.80 | \$ 45.90 |
| Second Quarter | 137.70 | 52.02 |
| Third Quarter | 149.94 | 87.21 |
| Fourth Quarter | 443.70 | 99.45 |
| Fiscal Year 2010 | | |
| | High | Low |
| First Quarter | \$ 466.65 | \$ 26.01 |
| Second Quarter | 42.84 | 15.30 |
| Third Quarter | 22.95 | 7.65 |
| Fourth Quarter | 9.18 | 3.06 |
| Fiscal Year 2011 | | |
| | High | Low |
| First Quarter | \$ 7.65 | \$ 1.53 |
| Second Quarter (through June 29, 2011) | \$ 4.59 | \$.95 |

The above share prices have been adjusted to reflect the April Reverse Split, but have not been adjusted to reflect the Offering Reverse Split anticipated to be effected prior to the effectiveness of the registration statement of which this prospectus is a part.

On June 29, 2011 there were 232 holders of record of our common stock. This number does not include stockholders for whom shares were held in a “nominee” or “street” name.

We have not declared or paid any cash dividends on our common stock and do not anticipate declaring or paying any cash dividends in the foreseeable future. We currently expect to retain future earnings, if any, for the development of our business.

Our transfer agent and registrar is American Stock Transfer and Trust Company, 59 Maiden Lane, New York, NY 10038.

Equity compensation plans

The following table provides information as of December 31, 2010, giving effect to the April Reverse Split regarding shares authorized for issuance under our equity compensation plans, including individual compensation arrangements.

We have two equity compensation plans approved by our stockholders: the 2000 Stock Option and Incentive Plan and the 2006 Stock Incentive Plan. During 2004 and 2005, we also issued options to our directors and consultants that were not approved by our stockholders. These options are exercisable within a ten-year period from the date of the grant and vest at various intervals with all options being fully vested within three years of the date of grant. The option price per share is not less than the fair market value of our common stock on the date of grant.

Equity compensation plan information

| Plan category | Number of shares to be issued upon exercise of outstanding options, warrants and rights (#) | Weighted-average exercise price of outstanding options, warrants and rights (\$) | Number of shares remaining available for future issuance under equity compensation plans (excluding shares reflected in column (a)) (#) |
|--|--|---|--|
| | (a) | (b) | (c) |
| Equity compensation plans approved by stockholders | 38,657 | \$ 100.98 | 25,555 |
| Equity compensation plans not approved by stockholders | 10,569 | \$ 100.98 | 0 |
| Total | 49,226 | \$ 100.98 | 25,555 |

DILUTION

Our pro forma net tangible book value as of March 31, 2011 was \$ or \$ per share of common stock, based upon shares outstanding as of that date giving effect to the Acquisition, the conversion of convertible debt, the payment of certain long term debt and the private placement occurring on April 8, 2011. Net tangible book value per share is determined by dividing such number of outstanding shares of common stock into our net tangible book value, which is our total tangible assets less total liabilities. After giving effect to the sale of the shares in this offering at the assumed public offering price of \$ per share, at March 31, 2011, after deducting underwriting discounts and commissions and other estimated offering expenses payable by us, our pro forma as adjusted net tangible book value at March 31, 2011 would have been approximately , or \$ per share. This represents an immediate increase in net tangible book value of approximately \$ per share to our existing stockholders, and an immediate dilution of \$ per share to investors purchasing shares in the offering.

The following table illustrates the per share dilution to investors purchasing shares in the offering:

| | |
|--|----|
| Assumed public offering price per share | \$ |
| Pro forma net tangible book value per share as of March 31, 2011 | \$ |
| Increase per share attributable to sale of shares to investors | \$ |
| Pro forma as adjusted net tangible book value per share after the offering | \$ |
| Dilution per share to investors | \$ |

The foregoing illustration does not reflect potential dilution from the exercise of outstanding options or warrants to purchase shares of our common stock. The foregoing illustration also does not reflect the dilution that would result from the underwriter warrants.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read together with our financial statements and the related notes appearing elsewhere in this prospectus. This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. See "Forward-Looking Statements" for a discussion of the uncertainties, risks and assumptions associated with these statements. Actual results and the timing of events could differ materially from those discussed in our forward-looking statements as a result of many factors, including those set forth under "Risk Factors" and elsewhere in this prospectus.

Acquisition

On April 8, 2011, we entered into a business combination with Collectar (the “Acquisition”). Immediately prior to the Acquisition, we completed a 1-for-153 reverse split of our common stock (the “April Reverse Split”). We then issued 17,001,596 shares of our common stock to the former shareholders of Collectar as consideration for the Acquisition, constituting approximately 85% of our outstanding common stock after giving effect to the Acquisition. Upon the closing of the Acquisition, we completed the private placement of 6,846,537 shares of our common stock and warrants to purchase an additional 6,846,537 shares of our common stock (in each case after giving effect to the April Reverse Split). As a result of the Acquisition, we are implementing a revised business plan focused on the development of the Collectar compounds. We will conduct our operations from Collectar’s headquarters in Madison, WI and our executive offices will remain in Newton, MA. Further development of our other compounds (NOV-002 and NOV-205) has been suspended pending further evaluation. The following discussion corresponds to the results of operations of Collectar prior to Acquisition.

On April 8, 2011, immediately prior to the Acquisition, Collectar paid approximately \$627,000 in full settlement of a note payable to a bank. The payment was made in order to avoid an event of default that would have occurred as a result of the change of control that occurred at the time of the Acquisition. On April 8, 2011, the holders of Collectar convertible notes converted outstanding principal of \$2,720,985 and unpaid interest thereon into a fixed total of 4,181,535 shares of common stock.

Overview

We are a pharmaceutical company developing novel drugs for the treatment and diagnosis of cancer. We currently have three cancer-targeted compounds, which we believe are selectively taken up and retained in cancer cells (including cancer stem cells) versus normal cells. Thus, we believe our therapeutic compounds directly kill cancer cells while minimizing harm to normal cells offering the potential for a paradigm shift in cancer therapy – efficacy versus all three major drivers of mortality in cancer: primary tumors, metastases and stem cell-based relapse. LIGHT is a small-molecule cancer imaging agent. We believe LIGHT has first-in-class potential and we expect it to enter Phase 1/2 clinical trials in the third quarter of this year. HOT is a small-molecule, broad-spectrum, cancer-targeted molecular radiotherapeutic that delivers radiation directly and selectively to cancer cells and cancer stem cells. We believe HOT also has first-in-class potential, and we expect it to enter a Phase 1b dose escalation trial in the third quarter of this year and Phase 2 trials in 2012 as a monotherapy for solid tumors with significant unmet medical need. COLD, a cancer-targeted chemotherapy that we expect to submit an Investigational New Drug (“IND”) application to the FDA late in 2012, works primarily through Akt inhibition. 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.

Prior to the Acquisition, we had been developing oxidized glutathione-based compounds for the treatment of cancer, including NOV-002, an injectable small-molecule compound based on a proprietary formulation of oxidized glutathione that we had been developing for use in combination with standard of care chemotherapies for the treatment of solid tumors. From 2005 through 2010 we raised approximately \$67 million in capital for the development of our compounds. From November 2006 through January 2010, we conducted a Phase 3 trial of NOV-002 plus first-line chemotherapy in advanced non-small cell lung cancer which, when completed in February 2010, did not meet its primary and secondary efficacy endpoints. Following the completion of the Phase 3 trial during 2010, we explored strategic alternatives which resulted in the completion of the Acquisition in April 2011.

Results of Operations

Executive summary. In March 2010, we completed a Phase 1a dosimetry trial of HOT in humans (the “Phase 1a Trial”), demonstrating initial safety and establishing dosing parameters for a Phase 1b dose-escalation trial. Following the completion of the Phase 1a Trial and as a result of limited funding, Collectar suspended research and manufacturing activities, terminated certain non-key personnel and implemented salary reductions in an effort to contain costs while Collectar concentrated on its fund raising efforts. The decreases in operating costs for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 and the year ended December 31, 2010 compared to the year ended December 31, 2009 are primarily attributable to the cost reduction efforts implemented in 2010. The decreases in general and administrative expense for the three-month period ended March 31, 2011 were offset by increases in professional fees associated with the Acquisition. Following the Acquisition, we are resuming development activities in preparation for planned clinical trials in HOT and LIGHT scheduled to begin in the third quarter of 2011.

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.

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 and investor relations, directors' fees and professional fees for legal and accounting services.

Quarters Ended March 31, 2011 and 2010

Research and Development. Research and development expense for the three-month period ended March 31, 2011 was approximately \$471,000, compared to approximately \$1,137,000 for the three-month period ended March 31, 2010. The approximately \$666,000, or 58%, decrease in research and development expense occurred in several categories. Salary and overhead costs decreased approximately \$284,000 and lab supplies decreased approximately \$54,000 in 2011 compared to 2010 as a result of cost reduction efforts. Clinical trial costs associated with the Phase 1a Trial decreased approximately \$122,000 in 2011 compared to 2010 as a result of the completion of the trial in March 2010. Subcontracted preclinical research activities decreased approximately \$168,000 as a result of the completion of preclinical research activities initiated and completed in 2010. No additional preclinical research activities were initiated during the three-month period ended March 31, 2011.

General and Administrative. General and administrative expense for the three-month period ended March 31, 2011 was approximately \$382,000 compared to approximately \$356,000 in the three-month period ended March 31, 2010. The approximately \$26,000, or 7%, increase is primarily due to an increase of approximately \$219,000 in legal and other professional fees incurred in connection with the Acquisition. This increase was offset by a decrease of approximately \$189,000 in salary and overhead costs as a result of cost reduction efforts initially implemented in mid-2010.

Grant income. Qualifying therapeutic discovery projects, among others, include those designed to treat or prevent diseases or conditions by conducting pre-clinical or clinical activities for the purpose of securing FDA approval of a product. We received a cash grant during the three-month period ended March 31, 2011 of approximately \$45,000 from the U.S. Internal Revenue Service as a qualifying therapeutic discovery project credit pursuant to Patient Protection and Affordable Care Act. This grant has been recorded as a component of other income.

Interest expense, net. Interest expense, net for the three months ended March 31, 2011 and 2010 consists of the following:

| | Three Months ended March | |
|--|---------------------------------|---------------------|
| | 31, | |
| | 2011 | 2010 |
| Interest expense, convertible notes | \$ (146,000) | \$ (59,000) |
| Beneficial conversion feature, convertible notes | — | (214,000) |
| Interest expense, bank note | (12,000) | (14,000) |
| Interest income | 2,000 | 5,000 |
| | <u>\$ (156,000)</u> | <u>\$ (282,000)</u> |

Since the convertible notes were convertible into common stock at the date of issuance at a price per share which is less than the estimated fair value of our common stock at that date, the estimated intrinsic value of the beneficial conversion feature of approximately \$214,000 was recorded as a component of interest expense on the date of issuance. The increase in interest expense on the convertible notes issued on January 25, 2010 was a result of three factors. First, the interest was calculated over twenty-five additional days in the three-month period ended March 31, 2011; second, interest was calculated at a compounded rate beginning on the first anniversary of the issuance date; and third, the interest rate used to calculate interest was increased by 10% effective January 20, 2011. The decrease in interest income is attributable to the lower average cash and cash equivalents balance during the three months ended March 31, 2011.

Years Ended December 31, 2010 and 2009

Research and Development. Research and development expense for the year ended December 31, 2010 was approximately \$2,984,000, compared to approximately \$4,352,000 for the year ended December 31, 2009. The approximately \$1,368,000, or 31%, decrease in research and development expense occurred in several categories. Salary and overhead costs decreased approximately \$715,000, manufacturing materials and supplies decreased approximately \$236,000, lab supplies decreased approximately \$202,000, patent costs decreased approximately \$117,000 and consulting and manufacturing costs decreased approximately \$149,000 in 2010 compared to 2009 as a result of the cost reduction efforts described above. Clinical trial costs associated with the Phase 1a Trial decreased approximately \$237,000 in 2010 compared to 2009 as a result of the completion of the trial in March 2010. These decreases were offset by an increase of approximately \$368,000 during 2010 in subcontracted preclinical research activities in preparation of future clinical trials.

General and Administrative. General and administrative expense for the year ended December 31, 2010 was approximately \$1,210,000 compared to approximately \$1,824,000 in the year ended December 31, 2009. The approximately \$614,000, or 34%, decrease is primarily due to a decrease of approximately \$668,000 in salary and overhead costs and a decrease in consulting of approximately \$83,000 as a result of cost reduction efforts. This decrease was offset by an increase in legal and other professional fees of approximately \$277,000 associated with fund raising efforts and the Acquisition.

Grant income. Qualifying therapeutic discovery projects, among others, include those designed to treat or prevent diseases or conditions by conducting pre-clinical or clinical activities for the purpose of securing FDA approval of a product. We received a cash grant during 2010 of approximately \$200,000 from the U.S. Internal Revenue Service as a qualifying therapeutic discovery project credit pursuant to Patient Protection and Affordable Care Act. This grant has been recorded as a component of other income.

Interest expense, net. Interest expense, net for the years ended December 31, 2010 and 2009 consists approximately of the following:

| | <u>Year ended December 31,</u> | |
|--|--------------------------------|--------------------|
| | <u>2010</u> | <u>2009</u> |
| Interest expense, convertible notes | \$ (305,000) | \$ — |
| Beneficial conversion feature, convertible notes | (214,000) | — |
| Interest expense, bank note | (55,000) | (68,000) |
| Interest expense, other | (7,000) | — |
| Interest income | 15,000 | 24,000 |
| | <u>\$ (566,000)</u> | <u>\$ (44,000)</u> |

Since the convertible notes were convertible into common stock at the date of issuance at a price per share which is less than the estimated fair value of our common stock at that date, the estimated intrinsic value of the beneficial conversion feature of approximately \$214,000 was recorded as a component of interest expense on the date of issuance. In addition, we recorded approximately \$305,000 in interest expense on the convertible notes based on the stated interest rate. The increase in other interest expense is principally a result of the issuance of notes payable to the Wisconsin Department of Commerce in September 2010. The approximately \$9,000, or 37% decrease in interest income is attributable to the lower average cash and cash equivalents balance during the year end December 31, 2010.

Liquidity and Capital Resources

We have financed our operations since inception primarily through the sale of equity securities. To date, Collectar and Novelos have raised capital aggregating approximately \$105 million. Novelos has raised capital aggregating approximately \$78 million, including proceeds from the April 2011 private placement. From 2002 through 2010, Collectar raised capital aggregating approximately \$27 million through debt and equity issuances. As of March 31, 2011, we had approximately \$299,000 in cash and cash equivalents.

During the three-month period ended March 31, 2011, approximately \$325,000 was used in operations. During the three-month period ended March 31, 2011, our net loss was \$965,000. However, this included the following non-cash items: approximately \$58,000 in stock-based compensation, approximately \$144,000 in depreciation and amortization expense, and approximately \$146,000 of interest expense associated with convertible notes. During the three-month period ended March 31, 2011, approximately \$293,000 in cash was provided by the changes in accounts payable and accrued liabilities and other changes in working capital used cash of \$1,000.

As described above, on April 8, 2011, we completed the Acquisition. Upon the closing of the Acquisition, we completed the private placement of our common stock and warrants for gross proceeds of approximately \$5,135,000. We paid cash advisory and placement agent fees in the aggregate amount of approximately \$650,000 in connection with these transactions. As a result of the Acquisition, we are implementing a revised business plan focused on the development of the Collectar compounds. On April 8, 2011, immediately prior to the Acquisition, Collectar paid approximately \$627,000 in full settlement of a note payable to a bank. On April 8, 2011, the holders of Collectar convertible notes converted outstanding principal of \$2,720,985 and unpaid interest thereon into a fixed total of 4,181,535 shares of common stock.

Collectar has incurred losses since its inception and, as of December 31, 2010, had an accumulated deficit of \$24,045,004. These conditions, along with other matters raise substantial doubt about the Company's ability to continue as a going concern. We expect that we will continue to generate operating losses for the foreseeable future. We believe our cash on hand, the cash acquired in the Acquisition and, the proceeds from the April private placement, is adequate to fund operations into the fourth quarter of 2011. 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 plan to actively pursue financing alternatives, but there can be no assurance that we will obtain the necessary funding.

Critical Accounting Policies

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States, or GAAP, requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities as of the date of the financial statements, as well as the reported amounts of revenues and expenses during the periods presented. Actual results could differ from those estimates. We review these estimates and assumptions periodically and reflect the effects of revisions in the period that they are determined to be necessary.

We believe that the following accounting policies reflect our more significant judgments and estimates used in the preparation of our financial statements.

Accrued Liabilities. As part of the process of preparing financial statements, we are required to estimate accrued liabilities. This process involves identifying services that have been performed on our behalf, and estimating the level of service performed and the associated cost incurred for such service as of each balance sheet date in our financial statements. Examples of estimated expenses for which we accrue include: contract service fees such as amounts paid to clinical research organizations and investigators in conjunction with clinical trials; fees paid to vendors in conjunction with the manufacturing of clinical materials; and professional service fees, such as for lawyers and accountants. In connection with such service fees, our estimates are most affected by our understanding of the status and timing of services provided relative to the actual levels of services incurred by such service providers. The majority of our service providers invoice us monthly in arrears for services performed. In the event that we do not identify certain costs that have begun to be incurred, or we over- or underestimate the level of services performed or the costs of such services, our reported expenses for such period would be too high or too low. The date on which certain services commence, the level of services performed on or before a given date and the cost of such services are often determined based on subjective judgments. We make these judgments based on the facts and circumstances known to us in accordance with GAAP.

Stock-based Compensation. We account for stock-based compensation by measuring the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the period during which an employee is required to provide service in exchange for the award, the requisite service period (usually the vesting period). We account for transactions in which services are received from non-employees in exchange for equity instruments based on the fair value of such services received or of the equity instruments issued, whichever is more reliably measured.

Accounting for equity instruments granted or sold by us under accounting guidance requires fair-value estimates of the equity instrument granted or sold. If our estimates of the fair value of these equity instruments are too high or too low, our expenses may be over- or understated. For equity instruments granted or sold in exchange for the receipt of goods or services, we estimate the fair value of the equity instruments based on consideration of factors that we deem to be relevant at that time.

Off-Balance Sheet Arrangements

As of December 31, 2010 and March 31, 2011, we had no off-balance sheet arrangements.

BUSINESS

Business of Novelos

Novelos Therapeutics, Inc. (“Novelos” or the “Company”) is a pharmaceutical company developing compounds for the treatment of cancer. On April 8, 2011, Novelos entered into 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, and Cell Acquisition Corp. (the “Merger Subsidiary”), a wholly owned subsidiary of Novelos, pursuant to which Cellectar was merged into the Merger Subsidiary (the “Acquisition”).

We are developing novel drugs for the treatment and diagnosis of cancer based on our cancer-targeting technology: COLD, HOT (a radiolabeled compound) and LIGHT (labeled with a shorter-lived radioisotope, iodine-124). We believe our compounds are selectively taken up and retained in a wide variety of cancer cells (including cancer stem cells) versus normal cells. We believe our compounds directly kill cancer cells while minimizing harm to normal cells, offering the potential for a paradigm shift in cancer therapy by providing efficacy against all three major drivers of mortality in cancer: primary tumors, metastases and cancer stem cell-based relapse. More specifically, we believe our technology enables targeted delivery to cancer cells of apoptosis-inducing Akt inhibition or, when a radioactive molecule is attached, of ionizing radiation sufficient to kill cancer cells. When radiolabeled with iodine-124 for PET imaging, we believe our agent can provide an accurate and quantitative diagnosis of cancer, including metastases, and can also objectively measure therapeutic success. Together, we believe this platform is capable of yielding multiple, distinct oncology product opportunities in a broad spectrum of cancers which enable us to “find, treat and follow” cancer anywhere in the body in a novel, effective and highly selective way.

Market Overview

According to Cancer Market Trends (2008-2012, URCH Publishing), Datamonitor (July 3, 2006) and PharmaLive (October 9, 2009), the global market for cancer pharmaceuticals reached an estimated \$66 billion in 2007, nearly doubling from \$35 billion in 2005 and is expected to grow to \$80 billion by 2012. Furthermore, the US National Cancer Institute estimates that the overall cost of treating cancer in the US will increase to \$158 billion by 2020 from \$125 billion in 2010.

Technology Overview

Our compounds are alkylphospholipids (“APLs”) that interact with specialized microdomains within cell membranes (called “lipid rafts”) and, as a result, whose molecular targets are located at cellular membranes. Importantly, the core chemical structure shared across all three products provides selective targeting of cancer cells in preference to normal cells (due to enrichment of lipid rafts in the former). COLD was deliberately designed to contain iodine (in the form of the stable, non-radioactive isotope, ¹²⁷I), thus enabling additional, distinct products differing only with respect to the form of iodine they contain – HOT contains short-lived radioactive ¹³¹I and LIGHT contains the even more short-lived radioactive ¹²⁴I. As a result, three cancer-targeted product profiles have been generated from a single chemical structure – a chemotherapeutic (COLD), a molecular radiotherapeutic (HOT) and a diagnostic/imaging agent (LIGHT).

COLD is a cancer-targeted chemotherapy that, in pre-clinical experiments, inhibits the phosphatidylinositol 3-kinase (PI3K)/Akt survival pathway, which is overexpressed in many types of cancer. As a result, COLD selectively inhibits Akt activity, induces caspase-mediated apoptosis and inhibits cell proliferation in cancer cells versus normal cells. COLD also exhibits significant *in vivo* efficacy in mouse xenograft tumor models, including non-small cell lung cancer and triple-negative breast cancers, producing long-lasting tumor growth suppression and significantly increased survival. We believe COLD has the potential to be best-in-class versus other Akt inhibitors in development due to a) cancer cell/cancer stem cell targeting, resulting in cancer-selective inhibition of Akt and cell proliferation or b) suitability for intravenous administration which offers the prospect of greater systemic exposure and hence Akt inhibition in cancer cells that we believe results in superior efficacy. We expect to submit an Investigational New Drug (“IND”) application to the FDA in late 2012.

HOT (a radiolabeled compound) is a small-molecule, broad-spectrum, cancer-targeted molecular radiotherapeutic that we believe has first-in-class potential. HOT is comprised of a small quantity of COLD (too little for significant Akt inhibition), acting as a cancer-targeted delivery and retention vehicle, and incorporating a cytotoxic dose of radiotherapy (in the form of iodine-131, a radioisotope that is already in common use to treat thyroid and other cancer types). It is this “intracellular radiation” mechanism of cancer cell killing, coupled with selective delivery to a wide range of malignant tumor types, that imbues HOT with broad-spectrum anti-cancer activity. In 2009, we opened an IND with the FDA to study HOT in humans. In early 2010, we successfully completed a Phase 1a dosimetry trial in humans demonstrating initial safety and establishing dosing parameters for a Phase 1b dose-escalation trial. The Phase 1b dose-escalation trial is aimed at determining the Maximum Tolerated Dose, and we expect it to begin in the third quarter of 2011. In parallel, we expect to initiate Phase 2 efficacy trials in solid tumors in 2012 as soon as a minimal efficacious dose is established. We may determine such an effective dose upon seeing a response in the Phase 1b trial or calculating it from imaging trials in patients (see LIGHT below). Preclinical experiments *in vitro* (in cell culture) and *in vivo* (in animals) have demonstrated selective killing of cancer cells along with a benign safety profile. HOT’s anti-tumor/survival-prolonging activities have been demonstrated in over a dozen different xenograft models (human tumor cells implanted into animals) including breast, prostate, lung, glioma (brain), pancreatic, melanoma, ovarian, uterine, renal and colorectal cancers. In all but two models, a single administration of HOT was sufficient for efficacy. In view of HOT’s selective uptake and retention in a wide range of solid tumors, its single-agent efficacy in xenograft models and its non-specific mechanism of cancer-killing (radiation), we expect to first develop HOT as a monotherapy, initially for solid tumors.

LIGHT (labeled with a shorter-lived radioisotope, iodine-124) is a small-molecule imaging agent that we believe has first-in-class potential in detecting and quantifying cancerous tumors and metastases. LIGHT is comprised of a small quantity of COLD (too little for Akt inhibition), acting as a cancer-targeted delivery and retention vehicle, and incorporating ¹²⁴I, a new positron emission tomography (PET) imaging isotope. PET imaging used in conjunction with CT scanning has now become the imaging method of choice in oncology. In studies to date, LIGHT selectively illuminated malignant tumors in 52 of 54 animal models of cancer, demonstrating evidence of broad-spectrum, cancer-selective uptake and retention. We expect investigator-sponsored Phase 1/2 trials of LIGHT as a PET imaging agent to begin in the third quarter of 2011, and that the trials will initially include brain metastases, lung and breast cancers. These human trials, if successful, will serve two important purposes. First, to provide proof-of-concept for LIGHT itself as a PET imaging agent with the potential to supplant the current “gold standard” agent, 18-fluoro-deoxyglucose (FDG), due to what we believe to be LIGHT’s superior cancer-specificity and more favorable logistics of clinical use. Second, to accelerate clinical development of HOT by predicting efficacy and enabling estimation of efficacious doses of HOT for Phase 2 trials.

Products in Development

COLD

COLD is a cancer-targeted chemotherapy that, in pre-clinical experiments, inhibits the phosphatidylinositol 3-kinase (PI3K)/Akt survival pathway, which is overexpressed in many types of cancer. We believe COLD has the potential to be best-in-class versus other Akt inhibitors in development. We believe that COLD has important advantages over competitor agents including:

- Selective uptake and retention by cancer cells/cancer stem cells compared to normal cells/stem cells. This results in significantly greater potency of COLD as an inhibitor of cell proliferation in cancer cells vs. normal cells (greater than a 10-fold difference), or
- Suitability for intravenous administration, avoiding dose-limiting gastrointestinal toxicity seen with orally administered Akt-inhibiting APCs and potentially enabling greater systemic drug exposure and, hence, Akt-inhibition in cancer cells, resulting in superior efficacy.

We expect to submit an IND application to the FDA in late 2012.

Chemically, COLD is 18-(p-[¹²⁷I] iodophenyl) octadecyl phosphocholine, an alkyl phosphocholine (APC) subtype within the alkyl-phospholipid (APL) class of anti-tumor agents that includes perifosine, miltefosine and eldefosine. The iodine atom in its structure is the stable, non-radioactive (“cold”) isotope, ¹²⁷I.

COLD exhibits significant *in vivo* efficacy in mouse xenograft tumor models, including non-small cell lung cancer and triple-negative breast cancers. In these models, human cancer cells are transplanted to and grow/metastasize in immunosuppressed animals. Tumor-bearing mice treated therapeutically (i.e., after primary tumors were established) with COLD i.v. (100-times the mass dose used as a carrier in the radiotherapy agent, HOT) once a week for 5 weeks, showed almost complete suppression of tumor growth compared to saline-treated control animals. Tumor growth suppression by COLD was maintained long after the end of the treatment period. Importantly, survival in COLD-treated groups at experiment termination (100-200 days post tumor-cell injection) was 90% or more compared to 20% or less in control groups. Additionally, in a side-by-side comparison, COLD was much more effective in suppressing tumor growth and increasing survival in the lung cancer model than a standard dosing regimen of erlotinib (Tarceva, a marketed epidermal growth factor receptor kinase inhibitor).

The *in vivo* efficacy of COLD is believed to be at least in part the result of selective inhibition of the apoptosis-suppressing PI3K/Akt signaling pathway in cancer cells. This pathway, which is activated by growth factors such as PDGF (platelet-derived growth factor), EGF (epidermal growth factor), and insulin, is overactive in many human cancers and contributes to cell growth, proliferation, survival and resistance to radiation and chemotherapeutics. COLD selectively inhibits Akt activation in human cancer cells compared to normal proliferating cells (e.g., human fibroblasts). At the same concentrations, COLD induces caspase-mediated apoptosis and suppresses proliferation in a wide range of human cancer cell lines including prostate carcinoma, ovarian carcinoma, triple-negative breast carcinomas, pancreatic adenocarcinoma and non-small cell lung cancer. At these concentrations, COLD does not inhibit proliferation of normal cells.

Other cancer targeting APCs have also been reported to be active in xenograft models and to selectively inhibit tumor cell proliferation via a mechanism that involves induction of caspase-mediated apoptosis subsequent to inhibition of Akt activation and signaling. However, APCs are generally dose-limited *in vivo* (including in man) by side effects stemming from the necessity for their oral administration (due to their hemolytic properties), thus limiting Akt inhibition and anti-tumor efficacy. In contrast, data to date support the contention that COLD can be safely administered intravenously at doses that we believe will result in greater drug exposure compared to other APCs and, thus, in greater Akt inhibition and improved efficacy.

Non-APC Akt inhibitors in development are not cancer-targeting and thus have the potential for an unfavorable therapeutic index (due to non-selective inhibition of Akt, and hence proliferation) in normal vs. cancer cells. In contrast, selective uptake and retention of COLD results in more than 10-fold more potent inhibition of Akt activity and cell proliferation in cancer cells vs. normal cells.

The development path for COLD includes evaluation in a standard battery of IND-enabling pre-clinical tests and scaled-up manufacture. In parallel, we intend to test COLD in mouse xenograft tumor models in combination with standard chemotherapeutic agents to demonstrate synergies as have been reported for perifosine. These additional pre-clinical data will enable estimation of COLD plasma levels associated with *in vivo* efficacy, establish a starting dose for the initial Phase 1 clinical trial and facilitate selection of target indications. We expect to file an IND with the FDA for COLD in late 2012.

HOT (iodine-131 radiolabeled compound)

HOT is a small-molecule, broad-spectrum, cancer-targeted molecular radiotherapeutic that we believe has first-in-class potential. HOT is comprised of a small quantity of COLD (too little for Akt inhibition), acting as a cancer-targeted delivery and retention vehicle and incorporating a cytotoxic dose of radiotherapy (in the form of iodine-131, a radioisotope that is already in common use to treat thyroid and other cancer types). It is this “intracellular radiation” mechanism of cancer cell killing, coupled with delivery to a wide range of malignant tumor types, that imbues HOT with broad-spectrum anti-cancer activity. In 2009, we opened an IND with the FDA to study HOT in humans. In early 2010, we successfully completed a Phase 1a dosimetry trial in humans demonstrating initial safety and establishing dosing parameters for a Phase 1b dose-escalation trial. The Phase 1b dose-escalation trial is aimed at determining the Maximum Tolerated Dose, and we expect it to begin in the third quarter of 2011. In parallel, we expect to initiate Phase 2 efficacy trials in solid tumors in 2012 as soon as a minimal efficacious dose is established. We may determine such an effective dose upon seeing a tumor response in the Phase 1b trial or calculating it from imaging trials in patients (see LIGHT below). HOT’s anti-tumor/survival-prolonging activity has been demonstrated in multiple animal xenograft models (human tumor cells implanted into mice). In all but two models, a single administration of HOT was sufficient for efficacy. In view of HOT’s selective uptake and retention in a wide range of solid tumors, its single-agent efficacy in xenograft models and its non-specific mechanism of cancer-killing (radiation), we expect to first develop HOT as a monotherapy, initially for solid tumors.

Chemically, HOT is 18-(p-[¹³¹I]iodophenyl) octadecyl phosphocholine, identical to COLD except that the iodine in its structure is the radioactive (“hot”) isotope, ¹³¹I, which has a radiation half-life of eight days.

Single intravenous doses of HOT administered therapeutically (i.e., after primary tumors were established) have resulted in significant anti-tumor and/or survival benefit compared to control animals in mouse xenograft tumor models including ovarian, pancreatic, non-small cell lung, triple-negative breast, prostate, glioma, colorectal and kidney cancers. Survival benefit generally reflected the degree of tumor growth suppression. Efficacy was also seen in a xenograft model employing human uterine sarcoma cells which over-express efflux pumps known to underlie resistance to many standard chemotherapeutic drugs. The broad *in vivo* efficacy profile of HOT across many tumor types is reflected in the fact that selective tumor localization of LIGHT (which uses the same cancer-targeting drug delivery and retention vehicle as HOT) has been demonstrated in over 50 xenograft, spontaneous and transgenic cancer models. HOT was also tested in combination with a standard efficacious dose of gemcitabine in a pancreatic cancer xenograft model. Single doses of HOT or gemcitabine given alone were equally efficacious while the combination therapy was significantly more efficacious than either treatment alone (additive). In each xenograft study, the dose of HOT was ~100 µCi, which is at least 50% less than the maximum tolerated dose in mice.

Extensive, IND-enabling, Good Laboratory Practices (GLP) *in vivo* and *in vitro* pre-clinical pharmacokinetic/distribution, toxicology and drug safety studies were successfully completed using non-pharmacological concentrations/doses of COLD consistent with its role as a delivery/retention vehicle in HOT. Tissue distribution studies supported prediction of acceptable human organ exposures and body clearance for HOT. Importantly, and in sharp distinction from biological products labeled with ¹³¹I, the small molecule HOT showed very minimal variation in excretion kinetics and tissue distribution between individuals within species or across a 500-fold variation in dose. Single- and repeated-dose animal toxicology studies indicated very high margins of safety (80-200x) over the anticipated maximum human therapy dose of HOT.

In February 2010 we completed a Phase 1a dosimetry trial with a single intravenous doses of 10 mCi HOT in eight patients with relapsed or refractory advanced solid tumors. Single doses of HOT were well tolerated. The reported adverse events were all considered minimal, manageable and either not dose limiting or not related to HOT. There were no serious adverse events reported. Analysis of total body imaging and blood and urine samples collected over 42 days following injection indicated that doses of HOT expected to be therapeutically effective can be administered without harming vital organs. Two subjects (one with colorectal cancer metastasized to lung and another with prostate cancer) had tumors that were imaged with 3D nuclear scanning (SPECT/CT) on day 6 after administration of HOT. Uptake of HOT into tumor tissue (but not adjacent normal tissue or bone marrow) was clearly demonstrated in both subjects. Echoing animal studies, pharmacokinetic analyses demonstrated a prolonged halflife of radioactivity in the plasma after HOT administration (approximately 200 hours) and that there was no significant variation in excretion or radiation dosimetry between subjects. The trial established an initial dose of 12.5 mCi / m² (for example, 20 mCi dose for a patient with 1.6m² body surface area) for the Phase 1b escalating dose trial that is expected to begin in the third quarter of 2011.

The primary objective of this Phase 1b dose-escalation trial in patients with a range of advanced solid tumors is to define the Maximum Tolerated Dose (MTD) of HOT. In addition to determining the MTD, the Phase 1b trial will evaluate overall tumor response (using standard RESIST I criteria) and safety. Concurrently, separate studies will generate quantitative imaging data in cancer patients using LIGHT (see below). These imaging trials with LIGHT will predict efficacy and enable calculation of a minimal efficacious dose of HOT for Phase 2 trials, expected to begin in 2012, with an initial focus on solid tumors with significant unmet medical need. Based on its broad-spectrum mechanism of action and wide-ranging single agent activity in animal cancer models, HOT will be used as monotherapy through proof-of-concept clinical trials, with subsequent exploration of combination with chemotherapeutic agents (a number of which are known to be radiosensitizers and thus with potential to enhance the efficacy of HOT).

Tumor treatment with radioactive isotopes has been used as a fundamental cancer therapeutic for decades. The goals of targeted cancer therapy -- selective delivery of effective doses of isotopes that destroy tumor tissue, sparing of surrounding normal tissue, non-accumulation in vital organs such as the liver and kidneys -- remain goals of novel therapies as well. We believe our isotope delivery technology is poised to achieve these goals. Because HOT has been shown to reliably and near-universally accumulate in cancer cells and because the therapeutic properties of the ¹³¹I are well known, we believe the risk of non-efficacy in human clinical trials is less than that of other cancer therapies at this stage of development, although no assurance can be given.

Other targeted radiotherapies include the marketed drugs Zevalin(R) (⁹⁰Y, Spectrum Pharmaceuticals) and Bexxar(R) (¹³¹I, GSK). In both cases, tumor-targeting is monoclonal antibody-based and limited to non-Hodgkins lymphoma, which is a type of cancer involving cells of the immune system. Thus, these agents are not appropriate comparators for HOT because of their limited therapeutic utility (only one type of tumor) and because their target indication is often well-managed by other drugs (unlike HOT which has potential to treat tumor types for which the current standard of care is associated with very poor outcomes). Notably, both Zevalin(R) and Bexxar(R) were approved on the basis of objective response rates (shrinking of tumors) without data to support improvement in survival, suggesting that regulatory approval of radiopharmaceuticals can be based on relatively shorter and smaller pivotal clinical trials than is often the case in oncology.

In conclusion, we believe that HOT is not subject to the full extent of development risk typically associated with early-stage cancer therapeutics for the following reasons:

- HOT is selectively taken up by and retained in cancer vs. normal cells and its delivery vehicle (COLD) is intended to be given to patients in sub-pharmacological doses, resulting in an improved safety profile compared to standard chemotherapy.
- HOT does not rely on inhibition or enhancement of a specific pathway; it works by exposing cancer cells to sustained lethal radiation from within.
- To date, HOT (as demonstrated with LIGHT studies) has shown near-universal cancer-specific retention in more than 50 *in vivo* tumor models, making the molecule potentially effective in numerous cancer types (broad-spectrum) as compared to type-specific therapies.

- We believe we have completed all preclinical safety, pharmacology and toxicology studies required for an NDA including both single-dose and multi-dose studies.
- HOT is a small molecule that is easily characterized and synthesized and is therefore not subject to scale-up and manufacturing risks typically associated with large molecules such as monoclonal antibodies.
- HOT exploits a new cancer-selective delivery and retention mechanism, but is paired with a proven and effective radioisotope (¹³¹I) for therapy.
- HOT can be shipped using traditional freight carriers, such as FedEx, without special handling requirements, thereby significantly reducing the cost and effort in delivering HOT to a patient.

LIGHT (*labeled with a shorter-lived radioisotope, iodine-124*)

LIGHT is a small-molecule imaging agent that we believe has first-in-class potential in detecting and quantifying cancerous tumors and metastases. LIGHT is comprised of a small quantity of COLD (too little for Akt inhibition), acting as a cancer-targeted delivery and retention vehicle, and incorporating ¹²⁴I, a new positron emission tomography (PET) imaging isotope. PET imaging used in conjunction with CT scanning has now become the imaging method of choice in oncology. In studies to date, LIGHT selectively illuminated malignant tumors in 52 of 54 animal models of cancer, demonstrating evidence of broad-spectrum, cancer-selective uptake and retention. We expect investigator-sponsored Phase 1/2 trials of LIGHT as a PET imaging agent to begin in the third quarter of 2011, and that the trials will initially include brain metastases, lung and breast cancers. These human trials, if successful, will serve two important purposes. First, they will provide proof-of-concept for LIGHT itself as a PET imaging agent with the potential to supplant the current “gold standard” agent, 18-fluoro-deoxyglucose (FDG), due to what we believe to be LIGHT’s superior cancer-specificity and more favorable logistics of clinical use. Second, they will accelerate clinical development of HOT by predicting efficacy and enabling estimation of efficacious doses of HOT for Phase 2 trials.

Chemically, LIGHT is 18-(p-[¹²⁴I]iodophenyl) octadecyl phosphocholine, identical to COLD except that the iodine is the radioactive isotope, ¹²⁴I, which has a radiation half-life of 4 days.

Studies demonstrating the utility of LIGHT for imaging primary tumors and metastases as well as cancer stem cells are described above (Technology Overview).

The current gold standard for PET imaging (FDG, with sales of approximately \$500 million annually) accumulates in any tissue having increased glucose metabolism compared to surrounding tissue. As a result and in contrast to LIGHT, FDG is not selective for malignant tumors. FDG localizes in certain normal tissue such as heart, kidney and brain tissues that also have high glucose metabolism. FDG is also known to localize in inflammatory sites. Other major limitations to the use of FDG are found in pelvic imaging due to the high renal (kidney) clearance of the compound. These characteristics of FDG, therefore, decrease its diagnostic specificity for certain malignancies.

We compared LIGHT and FDG side by side (24 hours apart) in the same tumor-bearing mouse that was also treated with carageenan to induce inflammation. As expected, FDG demonstrated significant uptake into the inflammatory lesion and organs such as heart and bladder compared to the malignant tumors which were poorly imaged. LIGHT, on the other hand, showed no uptake into the inflammatory lesion and organs, yet clear and demonstrable uptake into the tumors.

Additionally, the radioisotopic half-life of only 110 minutes for fluorine-18 labeled agents, such as FDG, severely limits their delivery range relative to the point of manufacture. ¹²⁴I has a four-day half-life that permits worldwide distribution of LIGHT from one manufacturing location. Additionally, the longer half-life affords a longer imaging window of up to seven days following injection.

We expect to begin investigator sponsored Phase 1/2 trials of LIGHT aimed at demonstrating and quantifying selective uptake and retention in human solid tumors in the third quarter of 2011. We expect initial indications to include brain metastases, lung and breast cancers, with extension to other cancer types to follow.

Technology

COLD, HOT and LIGHT are alkylphospholipids (“APLs”) that interact with specialized microdomains within cell membranes (called “lipid rafts”) and, as a result, whose molecular targets are located at cellular membranes. Importantly, the core chemical structure shared across all three products provides selective targeting of cancer cells in preference to normal cells (due to enrichment of lipid rafts in the former). COLD was deliberately designed to contain iodine (in the form of the stable, non-radioactive isotope, ¹²⁷I), thus enabling additional, distinct products differing only with respect to the form of iodine they contain – HOT contains short-lived radioactive ¹³¹I and LIGHT contains even more short-lived ¹²⁴I. As a result, three cancer-targeted product profiles have been generated from a single chemical structure -- a chemo-therapeutic agent (COLD), a molecular radiotherapeutic agent (HOT) and a diagnostic/imaging agent (LIGHT).

Using a fluorescent-labeled analog of COLD (CLR1501 or “GLOW1”), selective uptake and retention has been demonstrated in cancer cells *in vitro*. Twenty-four hours after treatment, a variety of human tumor cell types (melanoma, colorectal, uterine, pancreatic, ovarian, glioblastoma) show six to ten-fold more staining with GLOW1 relative to normal cells (e.g., skin fibroblasts) do not. Significantly, uptake/retention was also seen in cancer stem cells which are known to be relatively resistant to both chemotherapy and radiation and may therefore contribute to eventual relapse of disease following conventional chemotherapy.

Malignant tumor targeting, including targeting of cancer stem cells, has also been demonstrated *in vivo*. For example, mice without intact immune systems, and inoculated with Panc-1 (pancreatic carcinoma), were injected with CLR1502 (“GLOW2”, a fluorescent-labeled analog of COLD that is active in the near-infrared range) 24 and 96 hours prior to imaging. *In vivo* optical imaging showed pronounced accumulation of GLOW2 in tumors versus non-target organs and tissues. Similarly, PET imaging of tumor-bearing animals (colon, glioma, triple negative breast and pancreatic tumor xenograft models) administered the imaging agent LIGHT clearly shows selective uptake and retention by both primary tumors and metastases, including cancer stem cells. Furthermore, PET/CT analysis following co-injection of HOT (for therapy) and LIGHT (for imaging) revealed time-dependent tumor shrinkage and disappearance (over 9 days) in a cancer xenograft model. Finally, we believe that the capability of our technology in targeting cancer stem cells *in vivo* was demonstrated by treating tumor-bearing mice with GLOW1 and then removing the tumor and isolating cancer stem cells, which continued to display GLOW1 labeling even after three weeks in cell culture.

The basis for selective tumor targeting of our compounds lies in differences between the plasma membranes of cancer cells as compared to those of most normal cells. Specifically, cancer cell membranes are highly enriched in “lipid rafts”. Lipid rafts are specialized regions of the membrane phospholipid bilayer that contain high concentrations of cholesterol and sphingolipids and serve to organize cell surface and intracellular signaling molecules (e.g. growth factor and cytokine receptors, the phosphatidylinositol 3-kinase (PI3K)/Akt survival pathway. Lipid rafts are central to the activity of our compounds in two ways:

1. Lipid rafts are portals of entry for APLs such as COLD, HOT and LIGHT. The marked selectivity of our compounds for cancer cells versus non-cancer cells is due to the fact that cancer cells have far more lipid rafts. In addition to accumulating in lipid rafts, COLD, HOT and LIGHT are transported into the cytoplasm, where they distribute to organelle membranes (mitochondria, ER, lysosomes) but not the nucleus.
2. Lipid rafts also regulate signaling-based cell functions including apoptosis and cell proliferation, and COLD disrupts this regulation. For example, one key signaling pathway that is regulated by interactions with lipid rafts and phospholipids is the phosphatidylinositol 3-kinase (PI3K)/Akt pathway. Akt (a serine/threonine protein kinase) is activated in lipid raft regions via phosphorylation by PI-dependent kinases and goes on to phosphorylate anti-apoptotic proteins (e.g., Bcl-xL and FLIP) resulting in their inactivation and, thus, promotion of tumor cell survival. COLD pharmacologically inhibits the activation of Akt. In cancer cells, Akt inhibition is associated with induction of apoptosis and decreased cell proliferation/survival.

The pivotal role played by lipid rafts is underscored by the fact that disruption of lipid raft architecture suppresses uptake of GLOW1 and radiolabeled COLD into cancer cells.

Pipeline Product

NOV-002, our pipeline compound, is a small-molecule immunomodulating and anti-cancer compound based on a proprietary formulation of oxidized glutathione that we believe has first-in-class potential. NOV-002 has been administered to approximately 1,000 cancer patients in clinical trials and was in Phase 2 development for solid tumors in combination with chemotherapy.

From November 2006 through January 2010, we conducted a Phase 3 trial of NOV-002 plus first-line chemotherapy in advanced non-small cell lung cancer (“NSCLC”) following three Phase 2 trials (two conducted in Russia and one conducted by us in the U.S.) that had demonstrated clinical activity and safety. The Phase 3 trial enrolled 903 patients, 452 of whom received NOV-002. In February 2010, we announced that the primary endpoint of improvement in overall survival compared to first-line chemotherapy alone was not met in this pivotal Phase 3 trial. Following evaluation of the detailed trial data, we announced in March 2010 that the secondary endpoints also were not met in the trial and that adding NOV-002 to paclitaxel and carboplatin chemotherapy was not statistically or meaningfully different in terms of efficacy-related endpoints or recovery from chemotherapy toxicity versus chemotherapy alone. However, NOV-002 was safe and did not add to the overall toxicity of chemotherapy. Based on the results from the Phase 3 trial, we have discontinued development of NOV-002 for NSCLC in combination with first-line paclitaxel and carboplatin chemotherapy.

Further development of NOV-002 and other oxidized glutathione compounds has been suspended pending further evaluation.

Manufacturing

We manufacture HOT and COLD at our current Good Manufacturing Practices (cGMP)-compliant radiopharmaceutical manufacturing facility in Madison, WI. This facility, consisting of approximately 19,500 square feet, contains offices, laboratories, a radiopharmaceutical research lab, a cGMP radiopharmaceutical manufacturing suite and a cGMP analytical laboratory for product release. Our manufacturing facility holds a State of Wisconsin Department of Health Services Radioactive Materials License which authorizes the use and possession of radioactive material for both manufacturing and distribution activities. This license establishes a possession limit of 9 Curies of iodine-131. The facility also holds a State of Wisconsin DHS Radioactive Materials License which authorizes the use and possession of radioactive materials by Collectar for research and development. The research and development license permits the use and possession of iodine-125, iodine-131 and iodine-124 in quantities sufficient to support in-house HOT manufacturing and other research needs. LIGHT is currently manufactured by our collaborator, the University of Wisconsin in Madison. The drug substance is identical for all three products with the exception of the different iodine isotope used in each. The base molecule is a dry powder produced via a six-step synthetic scheme. The release specifications for drug substance have been established and validated. The impurity levels at small scale are very low suggesting that larger scale production should be feasible. We have also demonstrated 24-month stability for the drug substance in desiccated and refrigerated form. Our laboratories are well equipped with the appropriate equipment for manufacturing pilot and small-scale batches to cGMP. We believe we have adequate capacity for any Phase II study of HOT and the potential for larger scale build-out for larger Phase III studies. We are exploring scaling up production capacity of COLD, via contract manufacturers or at our facility, to support an IND filing and clinical trials. All investigational drug substance and product intended for human use during clinical studies will be manufactured according to ICH guidelines, FDA requirements (CFR part 211) and cGMP.

Sales and Marketing

COLD, HOT and LIGHT have not been partnered to date. We plan to pursue and evaluate all available options to develop, launch and commercialize our compounds. These options presently include, but are not limited to, entering into a partnering arrangement with a pharmaceutical company or various pharmaceutical companies with strong development and commercial expertise and infrastructure in the U.S, Europe and/or Japan. While we currently do not plan to build our own sales force or utilize a contract sales organization for launch and commercialization of our compounds, we may reconsider.

Competition

COLD

We believe COLD has the potential to be best-in-class versus other Akt inhibitors in development. Important advantages of COLD over competitor agents are believed to include:

- Selective uptake and retention by cancer cells/cancer stem cells compared to normal cells/stem cells. This results in significantly greater potency of COLD as an inhibitor of cell proliferation in cancer cells vs. normal cells (>10-fold difference), or
- Suitability for intravenous administration, avoiding dose-limiting gastrointestinal toxicity seen with orally administered Akt-inhibiting APCs and potentially enabling greater systemic drug exposure and, hence, Akt-inhibition in cancer cells, resulting in superior efficacy.

HOT

HOT's "intracellular radiation" mechanism of cancer cell killing, coupled with delivery to a wide range of malignant tumor types, that imbues HOT with broad-spectrum anti-cancer activity. Other targeted radiotherapies include the marketed drugs Zevalin(R) (⁹⁰Y, Spectrum Pharmaceuticals) and Bexxar(R) (¹³¹I, GSK). In both cases, tumor-targeting is monoclonal antibody-based and limited to non-Hodgkins lymphoma, which is a type of cancer involving cells of the immune system. Thus, these agents are not appropriate comparators for HOT because of their limited therapeutic utility (only one type of tumor) and because their target indication is often well-managed by other drugs (unlike HOT which has potential to treat tumor types for which the current standard of care is associated with very poor outcomes). Notably, both Zevalin(R) and Bexxar(R) were approved on the basis of objective response rates (shrinking of tumors) without data to support improvement in survival, suggesting that regulatory approval of radiopharmaceuticals can be based on relatively shorter and smaller pivotal clinical trials than is often the case in oncology.

LIGHT

The current gold standard for PET imaging (FDG, with sales of approximately \$500 million annually) accumulates in any tissue having increased glucose metabolism compared to surrounding tissue. As a result and in contrast to LIGHT, FDG is not selective for malignant tumors. FDG localizes in certain normal tissue such as heart, kidney and brain tissues that also have high glucose metabolism. FDG is also known to localize in inflammatory sites. Other major limitations to the use of FDG are found in pelvic imaging due to the high renal (kidney) clearance of the compound. We believe these characteristics of FDG, therefore, decrease its diagnostic specificity for certain malignancies.

We compared LIGHT and FDG side by side (24 hours apart) in the same tumor-bearing mouse that was also treated with carageenan to induce inflammation. As expected, FDG demonstrated significant uptake into the inflammatory lesion and organs such as heart and bladder compared to the malignant tumors which were poorly imaged. LIGHT, on the other hand, showed no uptake into the inflammatory lesion and organs, yet clear and demonstrable uptake into the tumors.

Additionally, the radioisotopic half-life of only 110 minutes for fluorine-18 labeled agents, such as FDG, severely limits their delivery range relative to the point of manufacture. ¹²⁴I has a four-day half-life that permits worldwide distribution of LIGHT from one manufacturing location. Additionally, the longer half-life affords a longer imaging window of up to seven days following injection.

Intellectual Property

We have established a broad U.S. and international intellectual property rights portfolio around our cancer-targeting alkylphospholipid technology platform including COLD, HOT and LIGHT.

Our proprietary rights include patents and patent applications that are either owned by us or exclusively licensed to us by the University of Michigan (the "Michigan patents") HOT and LIGHT are covered by Michigan patents that provide compound (composition of matter) coverage in the US and Canada and expire in 2016. Our patents and applications cover methods of use, composition and method of manufacture related to COLD, HOT and LIGHT. Many of these patents and applications are filed in key commercial markets worldwide. These will generally expire between 2025 and 2030 unless extended.

In particular, HOT is covered by three additional series of our patents and applications aside from the Michigan compound patents. The first is directed to a method of use for cancer therapy and has also been filed in Europe and Japan, in addition to the U.S. These will be expected to expire in 2025. The second application is directed to modified forms of HOT and is pending in the U.S., and will be filed/nationalized in foreign countries in 2012. These patents, once issued, would expire in most jurisdictions in 2030. Lastly, an application directed to cancer stem cell therapy is pending in the U.S. and will be filed/nationalized in foreign countries in 2011 and is expected to expire in 2030. Some of these resulting patents may be extendable on a country-by-country basis.

COLD is covered by a series of pending applications directed to methods of using COLD for cancer therapy and will be filed/nationalized in foreign countries in 2012. These patents, once issued, would expire in 2030. Some of these resultant patents may be extendable on a country-by-country basis.

Separate from any patent protection and following product approval by regulatory authorities, data exclusivity may be available for HOT and COLD for up to 10 years on a country-by-country basis (e.g., up to 5 years in the U.S.).

LIGHT is covered by the Michigan compound patents as well as two of our U.S. patents, one of which is directed to its use for virtual colonoscopy (expiring 2025) and one of which is directed to its use for *in vitro* diagnostics (expiring 2025). LIGHT is also covered by pending U.S. and European patent applications directed to its use for *in vivo* diagnostics and once issued should expire in 2025. Lastly, the use of LIGHT for diagnostics purposes with cancer stem cells is pending in the U.S. and will be filed/nationalized in foreign countries in 2011. These patents are expected to expire in 2030.

In addition to the above noted patents/applications directed to HOT, COLD and LIGHT, we own other patents/applications directed to different forms of alkylphospholipids and methods of manufacturing of alkylphospholipids.

We also own all intellectual property rights worldwide (excluding Russia and the other states of the former Soviet Union, the “Russian Territory”) related to our clinical-stage pipeline compound, NOV-002, and other pre-clinical compounds based on oxidized glutathione. Issued composition of matter patents cover proprietary formulations of oxidized glutathione that do not expire until 2019, and these patents include methods of manufacture for oxidized glutathione formulated with various metals.

Licenses / Collaborations

In September 2003, Collectar entered into a license agreement (the “Michigan Agreement”) with the Regents of the University of Michigan, (“Michigan”) under which an exclusive license was granted, with the right to grant sublicenses, to develop, manufacture, and market products under several composition of matter patents which expire at varying dates in 2016. The Michigan Agreement expires upon the expiration of the last covered patent. We are responsible for an annual license fee of \$10,000 and are required to pay costs associated with the maintenance of the patents covered by the Michigan Agreement. Additionally, we are required to make certain milestone payments upon the filing of a New Drug Application (“NDA”) (ranging from \$50,000 to \$100,000, dependent upon whether the drug is for use in a therapeutic or diagnostic application) and certain milestones within a year following the first commercial sale of any license products. The sales milestones range from \$100,000 to \$200,000, dependent upon whether the drug is for use in a therapeutic or diagnostic application, provided that if sales in first 12 months are less than the amount of the milestone, then we are required to pay 50% of all sales until the milestone is satisfied. The Michigan Agreement provides that we pay a royalty equal to 3% of net sales of any licensed products sold by us or our sublicensees for such licensed products, provided however if the sublicense fee payable to us is less than 5%, then the royalties payable to Michigan shall be equal to 50% of the sublicense fee. Furthermore, the Michigan Agreement provides for a reduction in the royalties owed by up to 50% if we are required to pay royalties to any third parties related to the sale of the licensed products.

Employees

As of June 29, 2011 we had 14 full time employees. We believe our relationships with our employees are good.

Regulation

The production, distribution, and marketing of products employing our technology, and our development activities, are subject to extensive governmental regulation in the United States and in other countries. In the United States, we are subject to the Federal Food, Drug, and Cosmetic Act, as amended, and the regulations of the FDA, as well as to other federal, state, and local statutes and regulations. These laws, and similar laws outside the United States, govern the clinical and preclinical testing, manufacture, safety, effectiveness, approval, labeling, distribution, sale, import, export, storage, record-keeping, reporting, advertising, and promotion of drugs. Product development and approval within this regulatory framework, if successful, will take many years and involve the expenditure of substantial resources. Violations of regulatory requirements at any stage may result in various adverse consequences, including the FDA’s and other health authorities’ delay in approving or refusal to approve a product. Violations of regulatory requirements also may result in enforcement actions.

The following paragraphs provide further information on certain legal and regulatory issues with a particular potential to affect our operations or future marketing of products employing its technology.

Research, Development, and Product Approval Process

The research, development, and approval process in the United States and elsewhere is intensive and rigorous and generally takes many years to complete. The typical process required by the FDA before a therapeutic drug may be marketed in the United States includes:

- preclinical laboratory and animal tests performed under the FDA’s Good Laboratory Practices regulations, referred to herein as GLP;
- submission to the FDA of an IND, which must become effective before human clinical trials may commence;
- human clinical studies performed under the FDA’s Good Clinical Practices regulations, to evaluate the drug’s safety and effectiveness for its intended uses;

- FDA review of whether the facility in which the drug is manufactured, processed, packed, or held meets standards designed to assure the product's continued quality; and
- submission of a marketing application to the FDA, and approval of the application by the FDA.

Preclinical Testing

During preclinical testing, studies are performed with respect to the chemical and physical properties of candidate formulations. These studies are subject to GLP requirements. Biological testing is typically done in animal models to demonstrate the activity of the compound against the targeted disease or condition and to assess the apparent effects of the new product candidate on various organ systems, as well as its relative therapeutic effectiveness and safety. An IND must be submitted to the FDA and become effective before studies in humans may commence.

Clinical Trials

Clinical trial programs in humans generally follow a three-phase process. Typically, Phase 1 studies are conducted in small numbers of healthy volunteers or, on occasion, in patients afflicted with the target disease. Phase 1 studies are conducted to determine the metabolic and pharmacological action of the product candidate in humans and the side effects associated with increasing doses, and, if possible, to gain early evidence of effectiveness. In Phase 2, studies are generally conducted in larger groups of patients having the target disease or condition in order to validate clinical endpoints, and to obtain preliminary data on the effectiveness of the product candidate and optimal dosing. This phase also helps determine further the safety profile of the product candidate. In Phase 3, large-scale clinical trials are generally conducted in patients having the target disease or condition to provide sufficient data for the statistical proof of effectiveness and safety of the product candidate as required by United States regulatory agencies.

In the case of products for certain serious or life-threatening diseases, the initial human testing may be done in patients with the disease rather than in healthy volunteers. Because these patients are already afflicted with the target disease or condition, it is possible that such studies will also provide results traditionally obtained in Phase 2 studies. These studies are often referred to as "Phase 1/2" studies. However, even if patients participate in initial human testing and a Phase 1/2 study carried out, the sponsor is still responsible for obtaining all the data usually obtained in both Phase 1 and Phase 2 studies.

Before proceeding with a study, sponsors may seek a written agreement from the FDA regarding the design, size, and conduct of a clinical trial. This is known as a Special Protocol Assessment ("SPA"). Among other things, SPAs can cover clinical studies for pivotal trials whose data will form the primary basis to establish a product's efficacy. SPAs help establish upfront agreement with the FDA about the adequacy of a clinical trial design to support a regulatory approval, but the agreement is not binding if new circumstances arise. There is no guarantee that a study will ultimately be adequate to support an approval even if the study is subject to an SPA.

United States law requires that studies conducted to support approval for product marketing be "adequate and well controlled." In general, this means that either a placebo or a product already approved for the treatment of the disease or condition under study must be used as a reference control. Studies must also be conducted in compliance with good clinical practice requirements, and informed consent must be obtained from all study subjects.

The clinical trial process for a new compound can take ten years or more to complete. The FDA may prevent clinical trials from beginning or may place clinical trials on hold at any point in this process if, among other reasons, it concludes that study subjects are being exposed to an unacceptable health risk. Trials may also be prevented from beginning or may be terminated by institutional review boards, who must review and approve all research involving human subjects. Side effects or adverse events that are reported during clinical trials can delay, impede, or prevent marketing authorization. Similarly, adverse events that are reported after marketing authorization can result in additional limitations being placed on a product's use and, potentially, withdrawal of the product from the market.

Submission of NDA

Following the completion of clinical trials, the data are analyzed to determine whether the trials successfully demonstrated safety and effectiveness and whether a product approval application may be submitted. In the United States, if the product is regulated as a drug, an NDA must be submitted and approved before commercial marketing may begin. The NDA must include a substantial amount of data and other information concerning the safety and effectiveness of the compound from laboratory, animal, and human clinical testing, as well as data and information on manufacturing, product quality and stability, and proposed product labeling.

Each domestic and foreign manufacturing establishment, including any contract manufacturers we may decide to use, must be listed in the NDA and must be registered with the FDA. The application generally will not be approved until the FDA conducts a manufacturing inspection, approves the applicable manufacturing process and determines that the facility is in compliance with cGMP requirements.

Under the Prescription Drug User Fee Act, as amended, the FDA receives fees for reviewing an NDA and supplements thereto, as well as annual fees for commercial manufacturing establishments and for approved products. These fees can be significant. For fiscal year 2011, the NDA review fee alone is \$1,542,000, although certain limited deferral, waivers, and reductions may be available.

Each NDA submitted for FDA approval is usually reviewed for administrative completeness and reviewability within 45 to 60 days following submission of the application. If deemed complete, the FDA will “file” the NDA, thereby triggering substantive review of the application. The FDA can refuse to file any NDA that it deems incomplete or not properly reviewable. The FDA has established performance goals for the review of NDAs— six months for priority applications and 10 months for standard applications. However, the FDA is not legally required to complete its review within these periods and these performance goals may change over time.

Moreover, the outcome of the review, even if generally favorable, typically is not an actual approval but an “action letter” that describes additional work that must be done before the application can be approved. The FDA’s review of an application may involve review and recommendations by an independent FDA advisory committee. Even if the FDA approves a product, it may limit the approved therapeutic uses for the product as described in the product labeling, require that warning statements be included in the product labeling, require that additional studies be conducted following approval as a condition of the approval, impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a risk management plan, or otherwise limit the scope of any approval.

Post NDA Regulation

Significant legal and regulatory requirements also apply after FDA approval to market under an NDA. These include, among other things, requirements related to adverse event and other reporting, product advertising and promotion and ongoing adherence to cGMPs, as well as the need to submit appropriate new or supplemental applications and obtain FDA approval for certain changes to the approved product labeling, or manufacturing process. The FDA also enforces the requirements of the Prescription Drug Marketing Act which, among other things, imposes various requirements in connection with the distribution of product samples to physicians.

The regulatory framework applicable to the production, distribution, marketing, and/or sale, of our product pipeline may change significantly from the current descriptions provided herein in the time that it may take for any of our products to reach a point at which an NDA is approved.

Overall research, development, and approval times depend on a number of factors, including the period of review at FDA, the number of questions posed by the FDA during review, how long it takes to respond to the FDA’s questions, the severity or life-threatening nature of the disease in question, the availability of alternative treatments, the availability of clinical investigators and eligible patients, the rate of enrollment of patients in clinical trials, and the risks and benefits demonstrated in the clinical trials.

Other United States Regulatory Requirements

In the United States, the research, manufacturing, distribution, sale, and promotion of drug and biological products are potentially subject to regulation by various federal, state, and local authorities in addition to the FDA, including the Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration), other divisions of the United States Department of Health and Human Services (e.g., the Office of Inspector General), the United States Department of Justice and individual United States Attorney offices within the Department of Justice, and state and local governments. For example, sales, marketing, and scientific/educational grant programs must comply with the anti-fraud and abuse provisions of the Social Security Act, the False Claims Act, the privacy provision of the Health Insurance Portability and Accountability Act, and similar state laws, each as amended. Pricing and rebate programs must comply with the Medicaid rebate requirements of the Omnibus Budget Reconciliation Act of 1990 and the Veterans Health Care Act of 1992, each as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection, unfair competition, and other laws.

Moreover, we are now, and may become subject to, additional federal, state, and local laws, regulations, and policies relating to safe working conditions, laboratory practices, the experimental use of animals, and/or the use, storage, handling, transportation, and disposal of human tissue, waste, and hazardous substances, including radioactive and toxic materials and infectious disease agents used in conjunction with our research work.

Foreign Regulatory Requirements

We and any future collaborative partners may be subject to widely varying foreign regulations, which may be quite different from those of the FDA, governing clinical trials, manufacture, product registration and approval, and pharmaceutical sales. Whether or not FDA approval has been obtained, we or any future collaboration partners must obtain a separate approval for a product by the comparable regulatory authorities of foreign countries prior to the commencement of product marketing in these countries. In certain countries, regulatory authorities also establish pricing and reimbursement criteria. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. In addition, under current United States law, there are restrictions on the export of products not approved by the FDA, depending on the country involved and the status of the product in that country.

Reimbursement and Pricing Controls

In many of the markets where we or any future collaborative partners would commercialize a product following regulatory approval, the prices of pharmaceutical products are subject to direct price controls (by law) and to drug reimbursement programs with varying price control mechanisms. Public and private health care payors control costs and influence drug pricing through a variety of mechanisms, including through negotiating discounts with the manufacturers and through the use of tiered formularies and other mechanisms that provide preferential access to certain drugs over others within a therapeutic class. Payors also set other criteria to govern the uses of a drug that will be deemed medically appropriate and therefore reimbursed or otherwise covered. In particular, many public and private health care payors limit reimbursement and coverage to the uses of a drug that are either approved by the FDA or that are supported by other appropriate evidence (for example, published medical literature) and appear in a recognized drug compendium. Drug compendia are publications that summarize the available medical evidence for particular drug products and identify which uses of a drug are supported or not supported by the available evidence, whether or not such uses have been approved by the FDA. For example, in the case of Medicare coverage for physician-administered oncology drugs, the Omnibus Budget Reconciliation Act of 1993, with certain exceptions, prohibits Medicare carriers from refusing to cover unapproved uses of an FDA-approved drug if the unapproved use is supported by one or more citations in the American Hospital Formulary Service Drug Information, the American Medical Association Drug Evaluations, or the United States Pharmacopoeia Drug Information. Another commonly cited compendium, for example under Medicaid, is the DRUGDEX Information System.

During 2009 and 2010, there have been positive developments regarding medical reimbursement for therapeutic radiopharmaceuticals in the United States. The Centers for Medicare and Medicaid Services have proposed that the reimbursement for radiopharmaceuticals shift from a cost-to-charge ratio ("CCR") to an average selling price ("ASP") plus 4% model. There has been support expressed for this proposal by government agencies, key industry members and the industry consortium, The Council on Radionuclides and Radiopharmaceuticals. The historical CCR model resulted in a reimbursement rate that was lower than the cost to purchase the drugs, thus creating a disincentive for hospitals to prescribe radiopharmaceuticals. The current ASP proposal is a solution to this reimbursement problem. Furthermore, there are proposals pending, which, if adopted, would decrease the physician reimbursement for chemotherapy and conventional radiation therapy. The proposed reduction in physician reimbursement for chemotherapy could likely result in the movement of a large volume of cancer care from the physician's office to the hospital environment. The proposed reduction in physician reimbursement for radiation therapy would result in a gap in revenue for radiation oncologists. Both proposed reductions favor an increase in opportunities to prescribe therapeutic radiopharmaceuticals. In fact, Zevalin(R) had an 84% increase in 2010 revenues versus 2009, according to Spectrum's Form 10-K for the year ended December 31, 2010.

LITIGATION

A putative federal securities class action complaint was filed on March 5, 2010 in the United States District Court for the District of Massachusetts by an alleged shareholder of Novelos, on behalf of himself and all others who purchased or otherwise acquired our common stock in the period between December 14, 2009 and February 24, 2010, against Novelos and our President and Chief Executive Officer, Harry S. Palmin. On October 1, 2010, the court appointed lead plaintiffs (Boris Urman and Ramona McDonald) and appointed lead plaintiffs' counsel. On October 22, 2010, an amended complaint was filed. The amended complaint claims, among other things, that Novelos violated Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder in connection with alleged misleading disclosures related to the progress of the Phase 3 clinical trial of NOV-002 for non-small cell lung cancer. On December 6, 2010, we filed a motion to dismiss the complaint with prejudice. On January 20, 2011, the plaintiffs filed their opposition to our motion and on March 3, 2011, we filed our response to their opposition. On June 23, 2011, the motion to dismiss was granted and the case was dismissed without prejudice. Because the dismissal was without prejudice, the plaintiffs could reinstitute the proceeding by filing an amended complaint.

On June 28, 2010, we received a letter from counsel to ZAO BAM and ZAO BAM Research Laboratories (Russian companies, collectively referred to as "BAM") alleging that we modified the chemical composition of NOV-002 without prior notice to or approval from BAM, constituting a material breach of a technology and assignment agreement we had entered into with BAM on June 20, 2000 (the "June 2000 Agreement"). The letter references our amendment, submitted to the FDA on August 30, 2005, to our investigational new drug application dated August 1999 as the basis for BAM's claims and demands the transfer of all intellectual property rights concerning NOV-002 to BAM. Mark Balazovsky, a director of Novelos from June 1996 until November 2006 and a shareholder of Novelos through at least June 25, 2010, is, to our knowledge, still the general director and principal shareholder of ZAO BAM. On September 24, 2010, we filed a complaint in Suffolk Superior Court seeking a declaratory judgment by the court that the June 2000 Agreement has been replaced by a subsequent agreement between the parties dated April 1, 2005 (the "April 2005 Agreement"), that Novelos' obligations to BAM are governed solely by the April 2005 Agreement and that the obligations of the June 2000 agreement have been performed and fully satisfied. On November 29, 2010, BAM answered the complaint, denying the material allegations, and stating its affirmative defenses and certain counterclaims. On January 14, 2011, we responded to the counterclaims, denying BAM's material allegations and stating our affirmative defenses. On June 9, 2011, BAM filed an amended counterclaim alleging additional claims related to Novelos' acquisition of Cellectar. In that amended counterclaim, BAM alleges that the acquisition evidences Novelos' abandonment of the technology assigned to it by BAM constituting a breach of the June 2000 Agreement or, if that agreement is determined to no longer be in effect, a breach of the April 2005 Agreement and/or a breach of the implied duty of good faith and fair dealing with respect to the April 2005 Agreement. On June 15, 2011 we filed our response to their amended counterclaim and a motion for judgment on the pleadings. We believe BAM's allegations and counterclaims are without merit and intend to vigorously defend against them.

PROPERTIES

We lease our executive office in Newton, Massachusetts. Our office consists of approximately 2,000 square feet and is rented for approximately \$5,300 per month. This lease may be terminated by either party with one month notice.

We lease office, laboratory and manufacturing space in Madison, WI. The space consists of approximately 19,500 square feet and is rented for approximately \$12,500 per month and expires on September 14, 2013. The lease may be renewed for three-year periods with an increase of 3% in annual rent.

We believe that our present facilities are adequate to meet our current needs. If new or additional space is required, we believe that adequate facilities are available at competitive prices.

MANAGEMENT

As of June 24, 2011, our directors and executive officers are:

| Name | Age | Position |
|---|------------|---|
| Stephen A. Hill, B.M. B.Ch., M.A., F.R.C.S. (3) | 52 | Chairman of the Board |
| Harry S. Palmin | 41 | President, Chief Executive Officer and Director |
| Kimberly A. Hawkins | 38 | Vice President of Clinical Development |
| Christopher J. Pazoles, Ph.D. | 61 | Senior Vice President of Research and Development |
| Joanne M. Protano | 42 | Vice President, Chief Financial Officer and Treasurer |
| Jamey P. Weichert, Ph.D. | 54 | Chief Scientific Officer and Director |
| Thomas Rockwell Mackie, Ph.D. (2) | 56 | Director |
| James S. Manuso, Ph.D. (2)(3) | 62 | Director |
| John Neis (1)(2) | 55 | Director |
| John E. Niederhuber, M.D. (1)(3) | 72 | Director |
| Howard M. Schneider (1) | 67 | Director |
| Michael F. Tweedle, Ph.D. (2) | 59 | Director |

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- (1) Member of the audit committee.
 - (2) Member of the compensation committee
 - (3) Member of the nominating and corporate governance committee



Our executive officers are appointed by, and serve at the discretion of, our board of directors.

Stephen A. Hill. Dr. Hill was elected the chairman of the board of directors of Novelos in September 2007. Dr. Hill has been the President and CEO of 21CB since March 2011. 21CB is a nonprofit initiative of UPMC designed to provide the United States government with a domestic solution for its biodefense and infectious disease biologics portfolio. Dr. Hill served as the President and Chief Executive Officer of Solvay Pharmaceuticals, Inc. since April 2008 until its acquisition by Abbott Laboratories in 2010. Prior to joining Solvay, Dr. Hill had served as ArQule's President and Chief Executive Officer since April 1999. Prior to his tenure at ArQule, Dr. Hill was the Head of Global Drug Development at F. Hoffmann-La Roche Ltd. from 1997 to 1999. Dr. Hill joined Roche in 1989 as Medical Adviser to Roche Products in the United Kingdom. He held several senior positions at Roche, including Medical Director where he was responsible for clinical trials of compounds across a broad range of therapeutic areas, including CNS, HIV, cardiovascular, metabolic and oncology products. Subsequently, he served as Head of International Drug Regulatory Affairs at Roche headquarters in Basel, Switzerland, where he led the regulatory submissions for seven major new chemical entities. Dr. Hill also was a member of Roche's Portfolio Management, Research, Development and Pharmaceutical Division Executive Boards. Prior to Roche, Dr. Hill served seven years with the National Health Service in the United Kingdom in General and Orthopedic Surgery. Dr. Hill is a Fellow of the Royal College of Surgeons of England and holds his scientific and medical degrees from St. Catherine's College at Oxford University. Dr. Hill's extensive experience in a broad range of senior management positions with companies in the life sciences sector make him a highly qualified member of our board of directors.

Harry S. Palmin. Mr. Palmin has served as our president and a director since 1998 and our chief executive officer since January 2005. From 1998 to September 2005, he served as our acting chief financial officer. From 1996 to 1998, he was a vice president at Lehman Brothers and from 1993 to 1996, he was an associate at Morgan Stanley & Co. Mr. Palmin earned a B.A. in economics and business and a M.A. in international economics and finance from the International Business School at Brandeis University. He has also studied at the London School of Economics and the Copenhagen Business School. Mr. Palmin's experience managing the funding and development of our product candidates for 13 years and his knowledge of capital markets are strong qualifications to serve on our board of directors.

Kimberly A. Hawkins. Ms. Hawkins has served as our vice president of clinical development since November 2010 and served as our director of clinical development since May 2006. She has worked for 17 years in the biopharmaceutical industry managing and overseeing clinical operations for multiple global Phase 1, 2 and 3 clinical studies. From 2001 to 2006, Ms. Hawkins was a senior manager in clinical development at Antigenics, Inc., a cancer biotechnology company where she managed multiple Phase 1 and 2 studies. From 1994 to 2001 she was employed by Genzyme Corporation, Center for Clinical Research Practice where she held the positions of clinical research associate, trainer of good clinical practice and study coordinator. From 1993 to 1994 she held the position of clinical research coordinator at Boston Medical Center. Ms. Hawkins has a B.S. degree in Human Physiology from Boston University and a Masters Degree in Public Health from Boston University School of Public Health.

Christopher J. Pazoles. Dr. Pazoles has served as our vice president of research and development since July 2005. He has 30 years of biopharmaceutical research and development and senior management experience. From May 2004 to June 2005, he held a senior research and development position at the Abbott Bioresearch Center, a division of Abbott Laboratories. From October 2002 to January 2004, he served as chief operating officer and head of research and development at ALS Therapy Development Foundation. From 1994 to October 2002, Dr. Pazoles served as vice president of research for Phytera, Inc. From 1981 to 1994, he served as a researcher and senior manager with Pfizer. Dr. Pazoles holds a Ph.D. in microbiology from the University of Notre Dame.

Joanne M. Protano. Ms. Protano was appointed our vice president, chief financial and accounting officer, and treasurer in December 2007. She has 20 years of finance and senior management experience. She previously held the position of Senior Director of Finance and Controller of the Company from June 2006 to December 2007. From 1996 to 2006, she held various management and senior management positions with Ascential Software, Inc. and predecessor companies including Assistant Controller, Reporting for Ascential Software, Vice President and Chief Financial Officer for the Ascential Software Division of Informix Software, Inc. and Corporate Controller of Ardent Software, Inc. Prior to her tenure in the technology industry, from 1990 to 1996 she was employed by Deloitte and Touche LLP as an audit manager, serving technology and healthcare clients. Ms. Protano received a B.S. in business administration from Bryant College.

Jamey P. Weichert. Dr. Weichert was the primary founder of Collectar serving as Collectar's Chairman and Chief Scientific Officer since 2002. He was appointed as the Chief Scientific Officer and a director of Novelos at the time of the Acquisition. Dr. Weichert is an Associate Professor of the Departments of Radiology, Medical Physics, Pharmaceutics and member of the Comprehensive Cancer Center at the University of Wisconsin, Madison. He has a bachelors degree in chemistry from the University of Minnesota and a doctorate in medicinal chemistry from the University of Michigan. His research interests include the design, synthesis and evaluation of biomimetic CT and MRI imaging agents and diapeutic radiopharmaceuticals. He has been involved in molecularly targeted imaging agent development his entire professional career and has developed or co-developed several imaging agents nearing clinical trial status. Dr. Weichert serves or has served on the editorial boards of numerous scientific journals and has authored more than 40 peer reviewed publications and 150 abstracts. He also has 20 issued or pending patents related to drug delivery, imaging and contrast agent development. Dr. Weichert's experience founding and managing the development of Collectar's product candidates and his knowledge of radiation technology are strong qualifications to serve on our board of directors.

Thomas Rockwell Mackie. Dr. Mackie became a director of the Company at the time of the Acquisition. He served as a director of Collectar since December 2006. In 1997, he co-founded TomoTherapy Incorporated, a maker of advanced radiation therapy solutions for the treatment of cancer and other diseases and has served as Chairman of its Board of Directors since 1999. Dr. Mackie also served as President of TomoTherapy Inc. from 1997 until 1999 and as Treasurer from 1997 until 2000. Since 1987, Dr. Mackie has been a professor in the departments of Medical Physics and Human Oncology at the University of Wisconsin, where he established the TomoTherapy research program. Dr. Mackie also co-founded Geometrics Corporation (now merged with ADAC Corp.), which developed a radiotherapy treatment planning system. Dr. Mackie currently serves as a director of Shine Medical Technologies and Bioionix Inc. and served on the management committee of Wisconsin Investment Partners from 2006 to 2009. Dr. Mackie has a B.Sc. in Physics from the University of Saskatchewan and a Ph.D. in Physics from the University of Alberta in Edmonton. Dr. Mackie's qualifications to serve on our board of directors include his extensive senior management experience with radiation technology companies.

James S. Manuso. Dr. Manuso has served as one of our directors since August 2007. Since January 2005, Dr. Manuso has served as Chairman, President and Chief Executive Officer of SuperGen, Inc. and has served as a director of SuperGen since February 2001. Dr. Manuso is co-founder and former president and chief executive officer of Galenica Pharmaceuticals, Inc. Dr. Manuso co-founded and was general partner of PrimeTech Partners, a biotechnology venture management partnership, from 1998 to 2002, and Managing General Partner of The Channel Group LLC, an international life sciences corporate advisory firm. He was also president of Manuso, Alexander & Associates, Inc., management consultants and financial advisors to pharmaceutical and biotechnology companies. Dr. Manuso was a vice president and Director of Health Care Planning and Development for The Equitable Companies (now Group Axa), where he also served as Acting Medical Director. He currently serves on the board of privately-held KineMed, Inc. He previously served on the boards of Merrion Pharmaceuticals Ltd. (Dublin, Ireland) Inflazyme Pharmaceuticals, Inc. (Vancouver, Canada), Symbiotics, Inc., (ZyStor, Inc., sold to BioMarin), Quark Biotech, Inc., Galenica Pharmaceuticals, Inc., Supratek Pharma, Inc., and EuroGen, Ltd. (London, UK). Dr. Manuso earned a B.A. in economics and chemistry from New York University, a Ph.D. in experimental psychophysiology from the Graduate Faculty of The New School University, a certificate in health systems management from Harvard Business School, and an executive M.B.A. from Columbia Business School. Dr. Manuso's experience founding, leading and serving as a director for pharmaceutical companies makes him a highly qualified member of our board of directors.

John Neis. Mr. Neis became a director of our Company at the time of the Acquisition. He served as director of Collectar since February 2008. Mr. Neis has been Managing Director of Venture Investors LLC since 1986 and heads the firm's Healthcare practice. He has over 23 years in the venture capital industry and serves on the Board of Directors of companies from formation through initial public offering or sale. Mr. Neis also currently serves on the boards of directors of Virent Energy Systems, Deltanoid Pharmaceuticals, Inviragen, Inc. and Mithridion, Inc. He is a former member of the Boards of Directors of several firms including TomoTherapy, Third Wave Technologies (acquired by Hologic) and NimbleGen Systems (acquired by Roche). Mr. Neis was appointed to the Board of the Wisconsin Technology Council and he also serves on the advisory boards for the Weinert Applied Ventures Program, the University of Wisconsin, Madison Business School and Tandem Press. Mr. Neis has a B.S. in Finance from the University of Utah, and a M.S. in Marketing and Finance from the University of Wisconsin, Madison. He is a Chartered Financial Analyst. Mr. Neis' extensive experience leading emerging companies make him a highly qualified member of our board of directors.

John E. Niederhuber. Dr. Niederhuber became a director of our Company at the time of the Acquisition. Dr. Niederhuber served as Director of the National Cancer Institute (NCI) from 2005 to 2010. He has also served as NCI's Chief Operating Officer and Deputy Director for Translational and Clinical Sciences. Dr. Niederhuber served as Chair of the National Cancer Advisory Board (NCAB) from 2002 to 2004. In addition to his management and advisory roles, Dr. Niederhuber has remained involved in research, through his laboratory on the National Institutes of Health (NIH) campus. Under his leadership, the Tumor and Stem Cell Biology Section, which is a part of the Cell and Cancer Biology Branch of NCI's Center for Cancer Research, is studying tissue stem cells as the cell-of-origin for cancer. Dr. Niederhuber also holds a clinical appointment on the NIH Clinical Center Medical Staff. As a surgeon, Dr. Niederhuber's clinical emphasis is on gastrointestinal cancer, hepatobiliary (liver, bile duct, and gall bladder) cancer, and breast cancer. He is recognized for his pioneering work in hepatic artery infusion chemotherapy and was the first to demonstrate the feasibility of totally implantable vascular access devices. Dr. Niederhuber is a graduate of Bethany College in West Virginia and the Ohio State University School of Medicine. He was an NIH Academic Trainee in Surgery at the University of Michigan from 1969 to 1970 and was a Visiting Fellow in the Division of Immunology at The Karolinska Institute in Stockholm, Sweden from 1970 to 1971. He completed his training in surgery at the University of Michigan in 1973 and was a member of the faculty of the University of Michigan from 1973 to 1987, being promoted to Professor of Microbiology/Immunology and Professor of Surgery in 1980. During 1986 and 1987, he was Visiting Professor in the Department of Molecular Biology and Genetics at The Johns Hopkins University School of Medicine in Baltimore, MD. Dr. Niederhuber's qualifications to serve on our board of directors include his extensive experience with cancer research.

Howard M. Schneider. Mr. Schneider has served as one of our directors since February 2005. Mr. Schneider is currently retired. From January to December 2003, he served as chief executive officer of Metrosoft, Inc., and had been an advisor to such company from July to December 2002. From May 2000 to May 2001, he served as president of Wofex Brokerage, Inc. and from 1965 to 1999, he served as an executive at Bankers Trust Company holding a variety of positions in the commercial banking and investment banking businesses. Mr. Schneider received a B.A. in economics from Harvard College and a M.B.A. from New York University. Mr. Schneider's extensive senior management experience in the financial sector makes him a highly qualified member of our board of directors.

Michael F. Tweedle. Dr. Tweedle became a director of Novelos at the time of the Acquisition. He is currently Professor and Stefanie Spielman Chair in Cancer Imaging in Radiology and the James Comprehensive Cancer Center of Ohio State University, Director of the Wright Center Molecular Imaging (MI) Agents Laboratory of Ohio State University, and has an adjunct appointment in the Chemistry Department of Ohio State University. Prior to joining Ohio State University, his academic appointments included Adjunct Associate Professor at University of Pennsylvania and the Science Advisory Board of New York University. Dr. Tweedle was the President of Bracco Research USA from 1995 to 2009 where he was the lead scientist and chief executive for creation of new molecular imaging pharmaceuticals. His industrial experience in drug discovery research also includes appointments at Diagnostics Drug Discovery Division at Bristol-Myers Squibb, New England Nuclear, DuPont Pharmaceuticals, and The Squibb Institute for Medical Research. He has invented and led translational development of diagnostic imaging pharmaceuticals for nuclear medicine, one of the first Gd-based MRI agents (ProHance™), X ray, Optical and US agents, and a radiotheranostic. In 2005 he won the Harry Fisher Medal. Dr. Tweedle holds a B.A. from Knox College, B.A. 1973, a Ph.D. from Rice University Ph.D. and is a Stanford University NRS Fellow. Dr. Tweedle's qualifications to serve on our board of directors include his extensive experience with radiation and cancer research and drug discovery.

Code of Ethics

The board of directors has adopted a Code of Ethics applicable to all of our directors, officers and employees, including our principal executive officer, principal financial officer and principal accounting officer. A copy of the Code of Ethics is available at our website www.novelos.com.

Compensation of Directors and Executive Officers

Summary Compensation: The following table sets forth certain information about the compensation we paid or accrued with respect to our principal executive officer and our two most highly compensated executive officers (other than our chief executive officer) who served as executive officers during the year ended December 31, 2010 and whose annual compensation exceeded \$100,000 for that year.

Other annual compensation in the form of perquisites and other personal benefits has been omitted as the aggregate amount of those perquisites and other personal benefits was less than \$10,000 for each person listed.

| Name and Principal Position | Year | Salary | | Bonus | Option | Total (\$) |
|---|------|--------|---------|-------|-------------|------------|
| | | (\$) | | (\$) | Awards (\$) | |
| | | | | (4) | (5) | |
| Harry S. Palmin (1) President, Chief Executive Officer | 2010 | \$ | 270,000 | \$ | 0 | \$ 270,000 |
| | 2009 | \$ | 270,000 | \$ | 40,500 | \$ 442,150 |
| Christopher J. Pazoles (2) Vice President of Research and Development | 2010 | \$ | 235,000 | \$ | 39,167 | \$ 274,167 |
| | 2009 | \$ | 235,000 | \$ | 35,250 | \$ 375,570 |
| Elias B. Nyberg (3) Vice President of Regulatory, Quality and Compliance | 2010 | \$ | 225,000 | \$ | 37,500 | \$ 262,500 |
| | 2009 | \$ | 225,000 | \$ | 33,750 | \$ 337,740 |

- (1) There has been no increase to Mr. Palmin's annual salary for 2011. On May 18, 2011, Mr. Palmin was granted an option to purchase 1,340,400 shares of common stock at an exercise price of \$1.40 per share, which option will vest with respect to: 670,200 such shares in equal quarterly installments over a four-year period; 167,550 such shares upon the closing of one or more financings with total gross proceeds of at least \$10 million before December 31, 2011; 167,550 such shares upon the closing of one or more financings with total gross proceeds of at least \$20 million before December 31, 2012; 167,550 such shares upon the availability of proof of concept data in man for LIGHT by December 31, 2011; and 167,550 such shares upon the initiation of a Phase 2a clinical trial for HOT by August 31, 2012.
- (2) On May 18, 2011, Dr. Pazoles' annual salary was increased to \$250,000 and he was granted an option to purchase 200,000 shares of common stock at an exercise price of \$1.40 per share, which option will vest in equal quarterly installments over a three-year period.
- (3) On March 10, 2011, the Company terminated Dr. Nyberg's employment. In connection with that termination, which was without cause, Dr. Nyberg received a payment of approximately \$83,000 pursuant to the terms of the executive retention agreement between him and the Company dated May 14, 2010.
- (4) Bonus amounts for 2009 were paid in 2010. Bonus amounts for Dr. Pazoles and Dr. Nyberg in 2010 represent retention bonuses paid as of October 1, 2010 pursuant to their respective retention agreements dated May 14, 2010.
- (5) The fair value of each stock award was estimated on the grant date using the Black-Scholes option-pricing model. See Note 9 to the financial statements for a description of the assumptions used in estimating the fair value of stock options. There were no option grants during 2010.

Employment Agreements

On January 31, 2006, we entered into an employment agreement with Harry Palmin effective January 1, 2006, whereby he agreed to serve as our president and chief executive officer for an initial term of two years at an annual salary of \$225,000. The agreement is automatically renewed for successive one-year terms unless notice of termination is provided by either party at least 90 days prior to the end of such term. The agreement was renewed for an additional one-year term on January 1, 2011 in accordance with its terms. On December 17, 2007, the Board of Directors approved an increase in Mr. Palmin's annual salary to \$270,000 effective January 1, 2008. He is eligible to receive an annual cash bonus at the discretion of the compensation committee and he is entitled to participate in our employee fringe benefit plans or programs generally available to our senior executives. The agreement provides that in the event that we terminate Mr. Palmin without cause or he resigns for good reason (as defined below), we will (i) pay Mr. Palmin his pro rata share of the average of his annual bonus paid during the two fiscal years preceding his termination; (ii) pay Mr. Palmin his base salary for 11 months after the date of termination; (iii) continue to provide him benefits for 11 months after the date of termination; and (iv) fifty percent of his unvested stock options will vest. The agreement provides for the vesting of unvested options upon a Change of Control, defined as the sale of all or substantially all of the assets or issued and outstanding capital stock of the Company, (ii) merger or consolidation involving the Company in which stockholders of the Company immediately before such merger or consolidation do not own immediately after such merger or consolidation capital stock or other equity interests of the surviving corporation or entity representing more than fifty percent (50%) in voting power of capital stock or other equity interests of such surviving corporation or entity outstanding immediately after such merger or consolidation, or (iii) a change, without the approval of the board of directors, in the composition of the board of directors such that directors who were serving as of the date of the agreement cease to constitute a majority of the board of directors. The agreement also contains a non-compete provision, which prohibits Mr. Palmin from competing with us for one year after termination of his employment with us.

“Cause” means (i) gross neglect of duties for which employed; (ii) committing fraud, misappropriation or embezzlement in the performance of duties as our employee; (iii) conviction or guilty or nolo plea of a felony or misdemeanor involving moral turpitude; or (iv) willfully engaging in conduct materially injurious to us or violating a covenant contained in the employment agreement.

“Good Reason” means (i) the failure of our board of directors to elect Mr. Palmin to the offices of president and chief executive officer; (ii) the failure by our stockholders to continue to elect Mr. Palmin to our board of directors; (iii) our failure to pay Mr. Palmin the compensation provided for in the employment agreement, except for across-the-board cuts applicable to all of our officers on an equal percentage basis, provided that such reduction is approved by our board of directors; (iv) relocation of Mr. Palmin’s principal place of employment to a location beyond 50 miles of Newton, Massachusetts; (v) a reduction of base salary or material reduction in other benefits or any material change by us to Mr. Palmin’s function, duties, authority, or responsibilities, which change would cause Mr. Palmin’s position with us to become one of lesser responsibility, importance, or scope; and (vi) our material breach of any of the other provisions of the employment agreement.

On June 1, 2011, the employment agreement between the Company and Harry Palmin dated January 31, 2006 was amended to remove the obligation of the Company to continue to pay Mr. Palmin’s salary and benefits for a period of 11 months following termination by the Company without Cause or termination by Mr. Palmin with Good Reason. The Company may elect that the obligation of Mr. Palmin not to compete with the Company survive for a period of one year from his termination, provided however that Mr. Palmin would continue to receive his base salary during that one-year noncompetition period.

We have entered into retention agreements with each of our four vice presidents. The agreements provide for the lump-sum payment of six months’ base salary and benefits to each such officer following a termination without cause or a resignation with good reason occurring on or before November 14, 2011. Certain of the agreements provide that if the executives were employed by us as of October 1, 2010, they would receive a payment of two months’ base salary as a retention bonus on that date. The retention bonus was paid in October 2010 and will be deducted from the severance amounts that may become payable upon a subsequent involuntary termination. The total remaining amount that may become payable to our Named Executive Officers pursuant to the retention agreements is approximately \$86,000 to Christopher Pazoles.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information regarding stock options held as of December 31, 2010 by the executive officers named in the summary compensation table and gives effect to the April Reverse Split. There were no option grants during 2010.

| Name | Year of Grant | Individual Grants | | Exercise or base price (\$/share) | Expiration date |
|------------------------|---------------|---|---|-----------------------------------|-----------------|
| | | Number of securities underlying unexercised options (#) exercisable | Number of securities underlying unexercised options (#) unexercisable | | |
| Harry S. Palmin | 2009(1) | 544 | 1,089 | \$ 114.75 | 12/8/2019 |
| | 2008(2) | 1,743 | 871 | 65.79 | 12/15/2018 |
| | 2007(2) | 1,307 | — | 68.85 | 12/17/2017 |
| | 2006(2) | 980 | — | 139.23 | 12/11/2016 |
| | 2005(3) | 1,633 | — | 1.53 | 1/31/2015 |
| | 2005(3) | 980 | — | 1.53 | 3/31/2015 |
| | 2004(4) | 2,156 | — | 1.53 | 4/1/2014 |
| | 2003(5) | 46 | — | 107.10 | 8/1/2013 |
| Christopher J. Pazoles | 2009(1) | 435 | 872 | \$ 114.75 | 12/8/2019 |
| | 2008(2) | 872 | 435 | 65.79 | 12/15/2018 |
| | 2007(2) | 816 | — | 68.85 | 12/17/2017 |
| | 2006(2) | 653 | — | 139.23 | 12/11/2016 |
| | 2005(6) | 653 | — | 1.53 | 4/8/2015 |
| Elias B. Nyberg | 2009(1) | 326 | 654 | \$ 114.75 | 12/8/2019 |
| | 2008(2) | 436 | 217 | 65.79 | 12/15/2018 |
| | 2008(7) | 653 | — | 88.74 | 4/1/2018 |

- (1) These shares vest quarterly in increments of one-twelfth over three years from the date of grant. The exercise price equals the closing price on the date of grant.
- (2) These shares vest annually in increments of one-third over three years from the date of grant. The exercise price equals the closing price on the date of grant.
- (3) These shares initially vested over a two-year period. Pursuant to their terms, the shares fully vested upon the completion of a non-bridge loan financing, which occurred in the second quarter of 2005. The exercise price equals the fair market value of our common stock on the date of grant as determined by our board of directors.
- (4) These shares initially vested one-third upon grant and one-third annually over the following two years. Pursuant to their terms, one additional year of vesting occurred upon the completion of a non-bridge loan financing, which occurred in the second quarter of 2005. The exercise price equals the fair market value of our common stock on the date of grant as determined by our board of directors.

- (5) These shares vest annually in increments of one-third over three years from the date of grant. The exercise price equals the fair market value of our common stock on the date of grant as determined by our board of directors.
- (6) These shares vested in increments of one-fourth every six months over two years from the date of grant. The exercise price equals the fair market value of our common stock on the date of grant as determined by our board of directors.
- (7) These shares were fully vested upon grant. The exercise price equals the closing price on the date of grant.

Options granted pursuant to the 2006 Stock Incentive Plan will become fully vested upon a termination event within one year following a change in control, as defined. A termination event is defined as either termination of employment other than for cause or constructive termination resulting from a significant reduction in either the nature or scope of duties and responsibilities, a reduction in compensation or a required relocation.

Director Compensation

Summary Compensation: The following table sets forth certain information about the compensation we paid or accrued with respect to our directors who served during the year ended December 31, 2010.

| Name and Principal Position | Year | Director Fees (\$ (3)) | Total (\$) |
|--------------------------------------|------|------------------------|------------|
| Stephen A. Hill, Chairman (1) | 2010 | \$ 39,500 | \$ 39,500 |
| Michael J. Doyle, Director (1)(2) | 2010 | 33,250 | 33,250 |
| Sim Fass, Director (1)(2) | 2010 | 32,500 | 32,500 |
| James S. Manuso, Director (1) | 2010 | 23,000 | 23,000 |
| David B. McWilliams, Director (1)(2) | 2010 | 24,500 | 24,500 |
| Howard M. Schneider, Director (1) | 2010 | 39,000 | 39,000 |

(1) As of December 31, 2010, outstanding options to purchase common stock held by directors were as follows: Dr. Hill 2,287; Mr. Doyle 2,287; Dr. Fass 2,287; Dr. Manuso 1,960; Mr. McWilliams 2,643; Mr. Schneider 1,633.

(2) In connection with the Acquisition, Mr. Doyle, Dr. Fass and Mr. McWilliams resigned from the board of directors.

(3) Director fees include all fees earned for director services including quarterly fees, meeting fees and committee chairman fees.

(4) There were no option grants during 2010.

During 2010, we paid our non-employee directors a cash fee of \$5,000 per quarter. The non-employee directors also received a fee of \$1,500 for any board or committee meeting attended and \$750 for each telephonic board or committee meeting in which the director participated. We also paid our chairman an additional annual fee in the amount of \$15,000, our non-employee director who serves as the chair of the audit committee an additional annual fee of \$10,000 and our non-employee directors who served as the chairman of the compensation and the nominating and corporate governance committees an additional annual fee of \$5,000. We reimbursed directors for reasonable out-of-pocket expenses incurred in attending board and committee meetings and undertaking certain matters on our behalf. Directors who are our employees do not receive separate fees for their services as directors. There has been no change to cash fees payable to non-employee directors for 2011. On May 18, 2011 options to purchase 150,000 shares of common stock at \$1.40 per share, vesting quarterly over two years were granted to our chairman Stephen Hill. On that same date, options purchase 100,000 shares of common stock at \$1.40 per year, vesting quarterly over two years were granted to each of the six non-employee directors other than the chairman.

**SECURITY OWNERSHIP OF CERTAIN
BENEFICIAL OWNERS AND MANAGEMENT**

At the close of business on June 24 2011, there were 26,826,157 shares of our common stock outstanding. The following table provides information regarding beneficial ownership of our common stock as of June 24, 2011:

- Each person known by us to be the beneficial owner of more than five percent of our common stock;
- Each of our directors;
- Each executive officer named in the summary compensation table; and
- All of our current directors and executive officers as a group.

The address of each executive officer and director is c/o Novelos Therapeutics, Inc., One Gateway Center, Suite 504, Newton, Massachusetts 02458. The persons named in this table have sole voting and investment power with respect to the shares listed, except as otherwise indicated. The inclusion of shares listed as beneficially owned does not constitute an admission of beneficial ownership. Shares included in the "Right to Acquire" column consist of shares that may be purchased through the exercise of options or warrants that are exercisable within 60 days of June 24, 2011.

| Name and Address of Beneficial Owner | Shares Beneficially Owned | | | |
|---|----------------------------------|-------------------------|--------------|-------------------|
| | Outstanding | Right to Acquire | Total | Percentage |
| Venture Investors LLC (1) (2) University Technology Park 505 S. Rosa Road; Suite 201 Madison, WI 53719 | 4,534,308 | 2,000,000 | 6,534,308 | 22.7 |
| Jamey P. Weichert (3) c/o Collectar Inc. 3301 Agriculture Drive Madison, WI 53716 | 4,706,730 | 11,333 | 4,718,063 | 17.6 |
| MEG-Collectar II, LLC (2) (4) 3001 West Beltline Highway, Suite 202 Madison, WI 53713 | 2,150,401 | 160,000 | 2,310,401 | 8.6 |
| Greenway Properties Inc. (2) 725 Heartland Trail, Suite 102 Madison, WI 53707 | 1,337,400 | 1,000,000 | 1,337,400 | 8.4 |
| Continuum Investment Limited Partnership (5) P.O. Box 620557 Middleton, WI 53562 | 1,808,524 | 0 | 1,808,524 | 6.7 |
| Harry S. Palmin (6) | 4,190 | 51,550 | 55,740 | * |
| Christopher J. Pazoles | 0 | 20,313 | 20,313 | * |
| Stephen A. Hill | 0 | 20,905 | 20,905 | * |
| Thomas Rockwell Mackie | 116,122 | 12,500 | 128,622 | * |
| James S. Manuso | 0 | 14,328 | 14,328 | * |
| John Neis (1) (2) | 4,534,308 | 2,012,500 | 6,546,808 | 22.7 |
| John E. Neiderhuber | 0 | 12,500 | 12,500 | * |
| Howard M. Schneider | 654 | 13,999 | 14,652 | * |
| Michael F. Tweedle | 0 | 11,333 | 11,333 | * |
| All directors and officers as a group (12 persons) | 9,362,004 | 2,210,551 | 11,572,555 | 39.9 |

- (1) Ownership consists of shares of common stock held by Venture Investors Early Stage Fund IV Limited Partnership and Advantage Capital Wisconsin Partners I, Limited Partnership. VIESF IV GP LLC is the general partner of Venture Investors Early Stage Fund IV Limited Partnership and Venture Investors LLC is the submanager and special limited partner of Advantage Capital Wisconsin Partners I, Limited Partnership. The investment decisions of VIESF IV GP LLC and Venture Investors LLC are made collectively by six managers, including Mr. Neis. Each such manager and Mr. Neis disclaim such beneficial ownership except to the extent of his pecuniary interest therein. The address of Mr. Neis is c/o Venture Investors LLC, 505 South Rosa Road, #201, Madison, Wisconsin 53719.
- (2) Shares in the "Right to Acquire" consist of warrants to purchase common stock at a price of \$0.75, expiring on March 31, 2016.
- (3) Dr. Weichert serves as our Chief Scientific Officer following the Acquisition. The shares beneficially owned by him have been included in the total of directors and officers as a group.
- (4) Ownership consists of shares of common stock held by MEG-Collectar II, LLC and approximately 184,000 shares owned by Bradley L. Hutter. Mr. Hutter is the managing director of Mortenson Equity Management LLC, which is the manager of MEG-Collectar II, LLC.
- (5) Ownership includes shares of common stock held by Collectar Investor I, LLC. Continuum Investment Limited Partnership is the

manager of Collectar Investor I, LLC.

- (6) Ownership of H. Palmin includes shares owned by his wife, Deanna Palmin.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We do not have a written policy for the review, approval or ratification of transactions with related parties or conflicted transactions. When such transactions arise they are referred to the Audit Committee for consideration or for referral to the Board of Directors for its consideration.

One of our directors, John Neis is a managing director of Venture Investors LLC which beneficially owns approximately 23% of our common stock.

Jamey Weichert, our Chief Scientific Officer, director, shareholder and principal founder of Celectar is a faculty member at the University of Wisconsin-Madison ("UW"). Celectar paid \$16,082 to the UW during 2009 for research related activities. No payments were made to UW during the three months ended March 31, 2011 or the year ended December 31 2010.

We are obligated to ZAO BAM, a Russian company engaged in the pharmaceutical business, under a royalty and technology transfer agreement. Mark Balazovsky, a director until November 2006, is the majority shareholder of ZAO BAM. Pursuant to the royalty and technology transfer agreement between Novelos and ZAO BAM, we are required to make royalty payments of 1.2% of net sales of oxidized glutathione-based products. We are also required to pay ZAO BAM \$2 million for each new oxidized glutathione-based drug within eighteen months following FDA approval of such drug.

If a royalty is not being paid to ZAO BAM on net sales of oxidized glutathione products, then we are required to pay ZAO BAM 3% of all license revenues. If license revenues exceed our cumulative expenditures including, but not limited to, preclinical and clinical studies, testing, FDA and other regulatory agency submission and approval costs, general and administrative costs, and patent expenses, then we would be required to pay ZAO BAM an additional 9% of the amount by which license revenues exceed our cumulative expenditures. During 2008, we paid ZAO BAM \$15,000, which was 3% of the upfront license payment received under the collaboration agreement with Lee's Pharm, described in Note 5 to the financial statements.

On June 28, 2010, we received a letter from counsel to ZAO BAM and ZAO BAM Research Laboratories (collectively, "BAM") alleging that we modified the chemical composition of NOV-002 without prior notice to or approval from BAM, constituting a material breach of a technology and assignment agreement we had entered into with BAM on June 20, 2000 (the "June 2000 Agreement"). The letter references our amendment, submitted to the FDA on August 30, 2005, to our investigational new drug application dated August 1999 as the basis for BAM's claims and demands the transfer of all intellectual property rights concerning NOV-002 to BAM. Mark Balazovsky, a director of Novelos from June 1996 until November 2006 and a shareholder of Novelos through at least June 25, 2010, is, to our knowledge, still the general director and principal shareholder of ZAO BAM. On September 24, 2010, we filed a complaint in Suffolk Superior Court seeking a declaratory judgment by the court that the June 2000 Agreement has been replaced by a subsequent agreement between the parties dated April 1, 2005 (the "April 2005 Agreement"), that the Company's obligations to BAM are governed solely by the April 2005 Agreement and that the obligations of the June 2000 agreement have been performed and fully satisfied. On November 29, 2010, BAM answered our complaint, denying the material allegations and stating its affirmative defenses and certain counterclaims. On January 14, 2011, we responded to the counterclaims, denying BAM's material allegations and stating our affirmative defenses. On June 9, 2011, BAM filed an amended counterclaim alleging additional claims related to Novelos' acquisition of Celectar. In that amended counterclaim, BAM alleges that the acquisition evidences Novelos' abandonment of the technology assigned to it by BAM constituting a breach of the June 2000 Agreement or, if that agreement is determined to no longer be in effect, a breach of the April 2005 Agreement and/or a breach of the implied duty of good faith and fair dealing with respect to the April 2005 Agreement. On June 15, 2011 we filed our response to their amended counterclaim and a motion for judgment on the pleadings. We believe BAM's allegations and counterclaims are without merit and intend to defend vigorously against them.

As a result of the assignment to Novelos of the exclusive worldwide intellectual property and marketing rights of oxidized glutathione (excluding the Russian Territory), Novelos is obligated to the Oxford Group, Ltd., or its assignees, for future royalties. Simyon Palmin, a founder of Novelos, a director until August 15, 2008 and the father of our president and chief executive officer, is president of Oxford Group, Ltd. Mr. Palmin was also an employee of Novelos until September 2008 and performed consulting services to the Company through December 2009. Pursuant to the agreement, as revised May 26, 2005, Novelos is required to pay Oxford Group, Ltd., or its assignees, a royalty in the amount of 0.8% of our net sales of oxidized glutathione-based products.

Director Independence

Each member of the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee and seven of our nine directors meet the independence requirements of the Nasdaq Stock Market for membership on the committees on which he serves. The board of directors considered the information included in transactions with related parties as outlined above along with other information the board considered relevant, when considering the independence of each director. Harry S. Palmin and Jamey P. Weichert are not independent directors.

UNDERWRITING

Rodman & Renshaw, LLC is acting as the sole managing underwriter of this offering. Under the terms and subject to the conditions contained in an underwriting agreement dated the date of this prospectus, Rodman & Renshaw, LLC, or the underwriter, has agreed to purchase, and we have agreed to sell to them, all shares offered by this prospectus.

Nature of Underwriting Commitment

The underwriting agreement provides that the underwriters are committed to purchase on a several but not joint basis all shares offered in this offering, other than those covered by the over-allotment option described below, if the underwriters purchase any of these securities. The underwriting agreement provides that the obligations of the underwriters to purchase the shares offered hereby are conditional and may be terminated at their discretion based on their assessment of the state of the financial markets. The obligations of the underwriters may also be terminated upon the occurrence of other events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters' obligations are subject to various other customary conditions, representations and warranties contained in the underwriting agreement, such as receipt by the underwriters of officers' certificates and legal opinions of our counsel.

State Blue Sky Information

We intend to offer and sell the shares offered hereby to retail customers and institutional investors in all 50 states. However, we will not make any offer of these securities in any jurisdiction where the offer is not permitted.

Pricing of Securities

The underwriters have advised us that they propose to offer the shares directly to the public at the public offering price set forth on the cover page of this prospectus, and to certain dealers that are members of the Financial Industry Regulatory Authority (FINRA), at such price less a concession not in excess of \$ per share. The underwriters may allow, and the selected dealers may reallow, a concession not in excess of \$ per share to certain brokers and dealers. After this offering, the offering price and concessions and discounts to brokers and dealers and other selling terms may from time to time be changed by the underwriters. These prices should not be considered an indication of the actual value of our shares of common stock and are subject to change as a result of market conditions and other factors. No variation in those terms will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus.

Our common stock is quoted on the OTC Bulletin Board under the symbol "NVL.T.OB." On , 2011, the closing market price of our common stock as quoted on OTC Bulletin Board was . The public offering price for the shares was determined by negotiation between us and the underwriters. The principal factors considered in determining the public offering price of the shares included:

- the information in this prospectus and otherwise available to the underwriters;
- the history and the prospects for the industry in which we will compete;
- our current financial condition and the prospects for our future cash flows and earnings;
- the general condition of the economy and the securities markets at the time of this offering;
- the recent market prices of, and the demand for, publicly-traded securities of generally comparable companies; and
- the public demand for our securities in this offering

We cannot be sure that the public offering price will correspond to the price at which our shares of common stock will trade in the public market following this offering or that an active trading market for our shares of common stock will develop and continue after this offering.

Commissions and Discounts

The following table summarizes the compensation to be paid to the underwriters by us and the proceeds, before expenses, payable to us, assuming a \$ offering price. The information assumes either no exercise or full exercise by the underwriters of the over-allotment option.

| | Per Share | Total | |
|--|-----------|------------------------|---------------------|
| | | Without Over-Allotment | With Over-Allotment |
| Public offering price | \$ | \$ | \$ |
| Underwriting discount (7%) (1) | \$ | \$ | \$ |
| Non-accountable expense allowance (1%) | \$ | \$ | \$ |
| Proceeds, before expenses, to us(2) | \$ | \$ | \$ |

(1) Underwriting discount is \$ per share (7% of the price of the shares sold in the offering).

(2) We estimate that the total expenses of this offering, excluding the underwriter's discount and the non-accountable expense allowance are approximately \$.

Over-allotment Option

We have granted the underwriter an option, exercisable for 45 days after the closing date of this offering, to purchase up to 15% of the shares sold in the offering (additional shares) solely to cover over-allotments, if any, at the same price as the initial shares offered. If the underwriters fully exercise the over-allotment option, the total public offering price, underwriting discount and expenses and net proceeds (before expenses) to us will be \$, \$, and \$ respectively.

Lock-ups

All of our directors and executive officers and our significant stockholders will enter into lock-up agreements that prevent them from selling any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock, subject to certain exceptions, for a period of not less than six months from the date of this prospectus without the prior written consent of the underwriter. The underwriter may in its sole discretion and at any time without notice release some or all of the shares subject to lock-up agreements prior to the expiration of the lock-up period. When determining whether or not to release shares from the lock-up agreements, the underwriter will consider, among other factors, the stockholder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time.

Underwriter's Warrant

We have also agreed to issue to Rodman & Renshaw LLC, a warrant to purchase a number of shares equal to 5% of the shares of common stock sold (excluding the over-allotment). The shares issuable upon exercise of this warrant are identical to those offered by this prospectus. This warrant is exercisable at \$ per share (125% of the price of the shares sold in this offering), at any time expiring four years after the closing date of this offering. The warrant may also be exercised on a cashless basis. The warrant and the shares of common stock underlying the warrant have been deemed compensation by the FINRA and are therefore subject to a 180-day lock-up pursuant to Rule 5110(g)(1) of FINRA. The underwriter (or permitted assignees under the Rule) will not sell, transfer, assign, pledge, or hypothecate this warrant or the securities underlying this warrant, nor will it engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of this warrant or the underlying securities for a period of 180 days from the date of this prospectus. Additionally, the warrant may not be sold transferred, assigned, pledged or hypothecated for a one-year period (including the foregoing 180 day period) following the effective date of the registration statement except to any underwriter and selected dealer participating in the offering and their bona fide officers or partners. The warrant provides for unlimited "piggy back" registration rights for a period of five years, from the date of this prospectus. These rights apply to all of the securities directly and indirectly issuable upon exercise of the warrant. We will bear all fees and expenses attendant to registering the securities issuable on exercise of the warrant, other than underwriting commissions incurred and payable by the holders. The exercise price and number of shares issuable upon exercise of the warrant may be adjusted in certain circumstances including in the event of a stock dividend, extraordinary cash dividend or our recapitalization, reorganization, merger or consolidation. However, the warrant exercise price or underlying shares will not be adjusted for issuances of common stock at a price below the warrant exercise price.

Other Terms

In connection with this offering, the underwriters or certain of the securities dealers may distribute prospectuses electronically. No forms of prospectus other than printed prospectuses and electronically distributed prospectuses that are printable in Adobe PDF format will be used in connection with this offering.

We will apply to have our common stock approved for listing on the NASDAQ Capital Market under the symbol “NVLT”.

The underwriter has informed us that it does not expect to confirm sales of shares offered by this prospectus to accounts over which they exercise discretionary authority without obtaining the specific approval of the account holder.

Stabilization

Until the distribution of the shares offered by this prospectus is completed, rules of the SEC may limit the ability of the underwriters to bid for and to purchase our securities. As an exception to these rules, the underwriters may engage in transactions effected in accordance with Regulation M under the Securities Exchange Act of 1934 that are intended to stabilize, maintain or otherwise affect the price of our common stock. The underwriters may engage in over-allotment sales, syndicate covering transactions, stabilizing transactions and penalty bids in accordance with Regulation M.

- Stabilizing transactions permit bids or purchases for the purpose of pegging, fixing or maintaining the price of the common stock, so long as stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriter is obligated to purchase, which creates a short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option or purchasing shares in the open market.
- Covering transactions involve the purchase of securities in the open market after the distribution has been completed in order to cover short positions. In determining the source of securities to close out the short position, the underwriters will consider, among other things, the price of securities available for purchase in the open market as compared to the price at which they may purchase securities through the over-allotment option. If the underwriters sell more shares of common stock than could be covered by the over-allotment option, creating a naked short position, the position can only be closed out by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the securities in the open market after pricing that could adversely affect investors who purchase in this offering.
- Penalty bids permit the underwriters to reclaim a selling concession from a selected dealer when the shares of common stock originally sold by the selected dealer are purchased in a stabilizing or syndicate covering transaction.

These stabilizing transactions, covering transactions and penalty bids may have the effect of raising or maintaining the market price of our securities or preventing or retarding a decline in the market price of our securities. As a result, the price of our securities may be higher than the price that might otherwise exist in the open market.

Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the prices of our securities. These transactions may occur on the over the counter market or on any other trading market. If any of these transactions are commenced, they may be discontinued without notice at any time.

Foreign Regulatory Restrictions on Purchase of the Shares

We have not taken any action to permit a public offering of shares of our shares outside the United States or to permit the possession or distribution of this prospectus outside the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about and observe any restrictions relating to this offering of shares and the distribution of the prospectus outside the United States.

In addition to the public offering of the shares in the United States, the underwriters may, subject to the applicable foreign laws, also offer the shares to certain institutions or accredited persons in the following countries:

Australia. If this document is issued or distributed in Australia it is issued or distributed to “wholesale clients” only, not to “retail clients”. For the purposes of this paragraph, the terms “wholesale client” and “retail client” have the meanings given in section 761 of the Australian Corporations Act 2001 (Cth). This document is not a disclosure document under the Australian Corporations Act, has not been lodged with the Australian Securities & Investments Commission and does not purport to include the information required of a disclosure document under the Australian Corporations Act. Accordingly, (i) the offer of securities under this document is only made to persons to whom it is lawful to offer such securities under one or more exemptions set out in the Australian Corporations Act, (ii) this document is only made available in Australia to those persons referred to in clause (i) above, and (iii) the offeree must be sent a notice stating in substance that, by accepting this offer, the offeree represents that the offeree is such a person as referred to in clause (i) above, and, unless permitted under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the securities sold to the offeree within 12 months after its transfer to the offeree under this document.

China. THIS PROSPECTUS HAS NOT BEEN AND WILL NOT BE CIRCULATED OR DISTRIBUTED IN THE PRC, AND ADSs MAY NOT BE OFFERED OR SOLD, AND WILL NOT BE OFFERED OR SOLD TO ANY PERSON FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, TO ANY RESIDENT OF THE PRC EXCEPT PURSUANT TO APPLICABLE LAWS AND REGULATIONS OF THE PRC

DIFC. DIFC and UAE have different requirements and, as a result, a generic legend for each is provided below

UAE. The offering has not been approved or licensed by the Central Bank of the United Arab Emirates (the “UAE”), Securities and Commodities Authority of the UAE and/or any other relevant licensing authority in the UAE including any licensing authority incorporated under the laws and regulations of any of the free zones established and operating in the territory of the UAE, in particular the Dubai Financial Services Authority (the “DFSA”), a regulatory authority of the Dubai International Financial Centre (the “DIFC”).

The offering does not constitute a public offer of securities in the UAE, DIFC and/or any other free zone in accordance with the Commercial Companies Law, Federal Law No.8 of 1984 (as amended), DFSA Offered Securities Rules and NASDAQ Dubai Listing Rules, accordingly, or otherwise. The securities offered hereby may not be offered to the public in the UAE and/or any of the free zones, including, in particular, the DIFC.

The securities offered hereby may be offered and issued only to a limited number of investors in the UAE or any of its free zones (including, in particular, the DIFC) who qualify as sophisticated investors under the relevant laws and regulations of the UAE or the free zone concerned, including, in particular, the DIFC.

The Company represents and warrants that the securities offered hereby will not be offered, sold, transferred or delivered to the public in the UAE or any of its free zones, including, in particular, the DIFC.”

Dubai. The issuer is not licensed by the Dubai Financial Services Authority (“DFSA”) to provide financial services in the Dubai International Financial Centre (“DIFC”). The offering has not been approved or licensed by the Central Bank of the United Arab Emirates (the “UAE”), Securities and Commodities Authority of the UAE and/or any other relevant licensing authority in the UAE including any licensing authority incorporated under the laws and regulations of any of the free zones established and operating in the territory of the UAE, in particular the DFSA, a regulatory of the DIFC.

The offering does not constitute a public offer of securities in the UAE, DIFC and/or any other free zone in accordance with the Commercial Companies Law, Federal Law No.8 of 1984 (as amended), DFSA Offered Securities Rules and NASDAQ Dubai Listing Rules, accordingly, or otherwise. The securities offered hereby may not be offered to the public in the UAE and/or any of the free zones, including, in particular, the DIFC.

The securities offered hereby may be offered and issued only to a limited number of investors in the UAE or any of its free zones (including, in particular, the DIFC) who qualify as sophisticated investors under the relevant laws and regulations of the UAE or the free zone concerned, including, in particular, the DIFC.

The Company represents and warrants that the securities offered hereby will not be offered, sold, transferred or delivered to the public in the UAE or any of its free zones, including, in particular, the DIFC.

Israel. The shares offered by this prospectus have not been approved or disapproved by the Israeli Securities Authority (the ISA), or ISA, nor have such shares been registered for sale in Israel. The shares may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus; nor has it authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the common stock being offered. Any resale, directly or indirectly, to the public of the shares offered by this prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

Pakistan. The investors / subscribers in Pakistan will be responsible for ensuring their eligibility to invest under the applicable laws of Pakistan and to obtain any regulatory consents if required for such purpose.

Saudi Arabia. NO OFFERING OF SHARES IS BEING MADE IN THE KINGDOM OF SAUDI ARABIA, AND NO AGREEMENT RELATING TO THE SALE OF THE SHARES WILL BE CONCLUDED IN SAUDI ARABIA. THIS DOCUMENT IS PROVIDED AT THE REQUEST OF THE RECIPIENT AND IS BEING FORWARDED TO THE ADDRESS SPECIFIED BY THE RECIPIENT. NEITHER THE AGENT NOR THE OFFERING HAVE BEEN LICENSED BY THE SAUDI'S SECURITIES AND EXCHANGE COMMISSION OR ARE OTHERWISE REGULATED BY THE LAWS OF THE KINGDOM OF SAUDI ARABIA.

THEREFORE, NO SERVICES RELATING TO THE OFFERING, INCLUDING THE RECEIPT OF APPLICATIONS AND/OR THE ALLOTMENT OF THE SHARES, MAY BE RENDERED WITHIN THE KINGDOM BY THE AGENT OR PERSONS REPRESENTING THE OFFERING.

UK. The content of this prospectus has not been issued or approved by an authorised person within the meaning of the United Kingdom Financial Services and Markets Act 2000 ("FSMA"). Reliance on this prospectus for the purpose of engaging in any investment activity may expose an Investor to a significant risk of losing all of the property or other assets invested. This prospectus does not constitute a Prospectus within the meaning of the FSMA and is issued in reliance upon one or more of the exemptions from the need to issue such a prospectus contained in section 86 of the FSMA.

Indemnification

The underwriting agreement provides for indemnification between us and the underwriters against specified liabilities, including liabilities under the Securities Act, and for contribution by us and the underwriters to payments that may be required to be made with respect to those liabilities. We have been advised that, in the opinion of the SEC, indemnification for liabilities under the Securities Act is against public policy as expressed in the Securities Act, and is therefore, unenforceable.

DESCRIPTION OF SECURITIES

Under our amended and restated certificate of incorporation, our authorized capital stock consists of 150,000,000 shares of common stock, \$0.00001 par value per share, and 7,000 shares of preferred stock, \$0.00001 par value per share.

Our amended and restated certificate of incorporation authorizes us to issue shares of our preferred stock from time to time in one or more series without stockholder approval. No shares of preferred stock are outstanding,

All outstanding shares of our common stock are duly authorized, validly issued, fully-paid and non-assessable.

Common Stock

Voting. Holders of our common stock are entitled to one vote per share held of record on all matters to be voted upon by our stockholders. Our common stock does not have cumulative voting rights. Persons who hold a majority of the outstanding common stock entitled to vote on the election of directors can elect all of the directors who are eligible for election.

Dividends. Subject to preferences that may be applicable to the holders of any outstanding shares of our preferred stock, the holders of our common stock are entitled to receive such lawful dividends as may be declared by our board of directors.

Liquidation and Dissolution. In the event of our liquidation, dissolution or winding up, and subject to the rights of the holders of any outstanding shares of our preferred stock, the holders of shares of our common stock will be entitled to receive pro rata all of our remaining assets available for distribution to our stockholders.

Other Rights and Restrictions. Our amended and restated certificate of incorporation prohibits us from granting preemptive rights to any of our stockholders. All outstanding shares are fully paid and nonassessable.

Anti-Takeover Effect of Certain Charter and By-Law Provisions

Provisions of our charter and our by-laws could make it more difficult to acquire us by means of a merger, tender offer, proxy contest, open market purchases, removal of incumbent directors and otherwise. These provisions, which are summarized below, are expected to discourage types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to first negotiate with us. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging takeover or acquisition proposals because negotiation of these proposals could result in an improvement of their terms.

Authorized but Unissued Stock . We have shares of common stock and preferred stock available for future issuance, in some cases, without stockholder approval. We may issue these additional shares for a variety of corporate purposes, including public offerings to raise additional capital, corporate acquisitions, stock dividends on our capital stock or equity compensation plans. The existence of unissued and unreserved common stock and preferred stock may enable our board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us, thereby protecting the continuity of our management. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation.

Amendments to by-laws. Our certificate of incorporation and by-laws authorize the Board to amend, repeal, alter or rescind the by-laws at any time without stockholder approval. Allowing the Board to amend our by-laws without stockholder approval enhances Board control over our by-laws.

Classification of Board; removal of directors; vacancies. Our certificate of incorporation provide for the division of the Board into three classes as nearly equal in size as possible with staggered three-year terms; that directors may be removed only for cause by the affirmative vote of the holders of two-thirds of our shares of capital stock entitled to vote; and that any vacancy on the Board, however occurring, including a vacancy resulting from an enlargement of the board, may be filled only by the vote of a majority of the directors then in office. The limitations on the removal of directors and the filling of vacancies could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, control of us. Our certificate of incorporation requires the affirmative vote of the holders of at least 75% of our shares of capital stock issued and outstanding and entitled to vote to amend or repeal any of these provisions.

Notice Periods for Stockholder Meetings. Our by-laws provide that for business to be brought by a stockholder before an annual meeting of stockholders, the stockholder must give written notice to the corporation not less than 90 nor more than 120 days prior to the one year anniversary of the date of the annual meeting of stockholders of the previous year; provided, however, that in the event that the annual meeting of stockholders is called for a date that is not within 30 days before or after such anniversary date, notice by the stockholder must be received not later than the close of business on the tenth day following the day on which the corporation's notice of the date of the meeting is first given or made to the stockholders or disclosed to the general public, whichever occurs first.

Stockholder action; special meetings. Our certificate of incorporation provides that stockholder action may not be taken by written action in lieu of a meeting and provides special meetings of the stockholders may only be called by our president or by our Board. These provisions could have the effect of delaying until the next stockholders' meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions may also discourage another person or entity from making a tender offer for our common stock, because that person or entity, even if it acquired a majority of our outstanding voting securities, would be able to take action as a stockholder only at a duly called stockholders' meeting, and not by written consent. Our certificate of incorporation requires the affirmative vote of the holders of at least 75% of our shares of capital stock issued and outstanding and entitled to vote to amend or repeal the provisions relating to prohibition on action by written consent and the calling of a special meeting of stockholders.

Nominations. Our by-laws provide that nominations for election of directors may be made only by (i) the Board or a committee appointed by the Board; or (ii) a stockholder entitled to vote on director election, if the stockholder provides notice to the Secretary of the Corporation presented not less than 90 days nor more than 120 days prior to the anniversary of the last annual meeting (subject to the limited exceptions set forth in the bylaws). These provisions may deter takeovers by requiring that any stockholder wishing to conduct a proxy contest have its position solidified well in advance of the meeting at which directors are to be elected and by providing the incumbent Board with sufficient notice to allow them to put an election strategy in place.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our charter contains provisions to indemnify our directors and officers to the maximum extent permitted by Delaware law. We believe that indemnification under our charter covers at least negligence on the part of an indemnified person. Our charter permits us to advance expenses incurred by an indemnified person in connection with the defense of any action or proceeding arising out of the person's status or service as our director, officer, employee or other agent upon an undertaking by the person to repay those advances if it is ultimately determined that the person is not entitled to indemnification.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and special reports, and other information with the Securities and Exchange Commission. Copies of the reports and other information may be read and copied at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can request copies of such documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a web site at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules and regulations of the SEC. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus. For further information you may:

- read a copy of the registration statement, including the exhibits and schedules, without charge at the SEC's Public Reference Room; or
- obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

LEGAL MATTERS

The validity of the securities being offered by this prospectus has been passed upon for us by Foley Hoag LLP, Boston, Massachusetts. Sichenzia Ross Friedman Ference LLP, New York, New York, is acting as counsel to the underwriters in this offering.

EXPERTS

The audited financial statements included in this prospectus and elsewhere in the registration statement have been so included in reliance upon the report(s) of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

FINANCIAL STATEMENTS

INDEX TO FINANCIAL STATEMENTS FOR NOVELOS THERAPEUTICS, INC. (A Development Stage Company)

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
Novelos Therapeutics, Inc.

We have audited the accompanying balance sheets of Novelos Therapeutics, Inc. (a Development Stage Company) (a Delaware corporation) (the "Company") as of December 31, 2010 and 2009, and the related statements of operations, stockholders' equity (deficiency), and cash flows for each of the two years in the period ended December 31, 2010 and the period from November 7, 2002 (date of inception) through December 31, 2010. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Novelos Therapeutics, Inc. as of December 31, 2010 and 2009, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2010 and the period from November 7, 2002 (date of inception) through December 31, 2010, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has incurred losses since its inception and, as of December 31, 2010, had an accumulated deficit of \$24,045,004. These conditions, along with other matters as set forth in Note 1, raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ GRANT THORNTON LLP

Chicago, Illinois
June 14, 2011

NOVELOS THERAPEUTICS, INC.
(a Development Stage Company)
BALANCE SHEETS

| | March 31, 2011 (unaudited) | December 31, 2010 (audited) | December 31, 2009 (audited) |
|---|----------------------------------|--------------------------------------|-----------------------------------|
| ASSETS | | | |
| CURRENT ASSETS: | | | |
| Cash and cash equivalents | \$ 298,667 | \$ 673,739 | \$ 980,125 |
| Restricted cash | 555,000 | 555,000 | 555,000 |
| Prepaid expenses and other current assets | 55,625 | 51,042 | 69,626 |
| Total current assets | 909,292 | 1,279,781 | 1,604,751 |
| FIXED ASSETS, NET | 3,366,315 | 3,510,489 | 4,088,951 |
| DEFERRED ISSUANCE COSTS | — | — | 99,461 |
| INTANGIBLE ASSETS | — | — | 19,671 |
| OTHER ASSETS | 12,747 | 11,872 | 11,872 |
| TOTAL ASSETS | \$ 4,288,354 | \$ 4,802,142 | \$ 5,824,706 |
| LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIENCY) | | | |
| CURRENT LIABILITIES: | | | |
| Accounts payable | \$ 446,440 | \$ 202,487 | \$ 250,516 |
| Accrued liabilities | 239,824 | 190,394 | 465,072 |
| Accrued interest | 450,851 | 305,049 | — |
| Notes payable, current portion | 625,745 | 204,802 | 190,789 |
| Capital lease obligations, current portion | 2,121 | 2,085 | 1,944 |
| Total current liabilities | 1,764,981 | 904,817 | 908,321 |
| LONG-TERM LIABILITIES: | | | |
| Convertible debt (Note 5) | 2,720,985 | 2,720,985 | — |
| Notes payable, net of current portion | 450,000 | 920,941 | 675,743 |
| Deferred rent (Note 12) | 119,634 | 115,311 | 105,338 |
| Capital lease obligations, net of current portion | 5,782 | 6,326 | 8,411 |
| Total long-term liabilities | 3,296,401 | 3,763,563 | 789,492 |
| COMMITMENTS AND CONTINGENCIES | | | |
| STOCKHOLDERS' EQUITY (DEFICIENCY): | | | |
| Common stock, \$0.00001 par value; 150,000,000 shares authorized; 12,820,102 shares issued and outstanding at March 31, 2011, December 31, 2010 and December 31, 2009 | 128 | 128 | 128 |
| Additional paid-in capital | 24,237,100 | 24,178,638 | 23,611,506 |
| Deficit accumulated during the development stage | (25,010,256) | (24,045,004) | (19,484,741) |
| Total stockholders' equity (deficiency) | (773,028) | 133,762 | 4,126,893 |
| TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIENCY) | \$ 4,288,354 | \$ 4,802,142 | \$ 5,824,706 |

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

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

| | Three Months Ended March | | Year Ended | | Cumulative |
|---|---------------------------------|-----------------------|-----------------------|-----------------------|------------------------|
| | 31, | | December 31, | | Development- |
| | 2011 | 2010 | 2010 | 2009 | Stage Period |
| | <u>(unaudited)</u> | <u>(unaudited)</u> | <u>(audited)</u> | <u>(audited)</u> | from |
| | | | | | November 7, |
| | | | | | 2002 (date of |
| | | | | | inception) |
| | | | | | through |
| | | | | | December 31, |
| | | | | | 2010 |
| | | | | | <u>(audited)</u> |
| COSTS AND EXPENSES: | | | | | |
| Research and development | \$ 471,404 | \$ 1,136,973 | \$ 2,984,207 | \$ 4,351,983 | \$ 17,205,959 |
| General and administrative | 382,160 | 356,439 | 1,209,474 | 1,824,302 | 7,023,104 |
| Total costs and expenses | <u>853,564</u> | <u>1,493,412</u> | <u>4,193,681</u> | <u>6,176,285</u> | <u>24,229,063</u> |
| LOSS FROM OPERATIONS | <u>(853,564)</u> | <u>(1,493,412)</u> | <u>(4,193,681)</u> | <u>(6,176,285)</u> | <u>(24,229,063)</u> |
| OTHER INCOME (EXPENSE): | | | | | |
| Grant income | 44,479 | — | 200,000 | — | 200,000 |
| Interest expense, net | (156,167) | (282,414) | (566,156) | (43,588) | (17,102) |
| Other income | — | (573) | (426) | — | 1,161 |
| Total other income (expense) | <u>(111,688)</u> | <u>(282,987)</u> | <u>(366,582)</u> | <u>(43,588)</u> | <u>184,059</u> |
| NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS | <u>\$ (965,252)</u> | <u>\$ (1,776,399)</u> | <u>\$ (4,560,263)</u> | <u>\$ (6,219,873)</u> | <u>\$ (24,045,004)</u> |
| BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | <u>\$ (0.08)</u> | <u>\$ (0.14)</u> | <u>\$ (0.36)</u> | <u>\$ (0.49)</u> | <u>\$ (2.53)</u> |
| SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | <u>12,820,102</u> | <u>12,820,102</u> | <u>12,820,102</u> | <u>12,820,102</u> | <u>9,513,115</u> |

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

NOVELOS THERAPEUTICS, INC.
(a Development Stage Company)
STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIENCY)

| | Common Stock | | Additional Paid-in Capital | Deficit Accumulated During the Development Stage | Total Stockholders' Equity (Deficiency) |
|---|--------------|------------|----------------------------------|--|--|
| | Shares | Par Amount | | | |
| BALANCE AT NOVEMBER 7, 2002 | — | \$ — | \$ — | \$ — | \$ — |
| Issuance of common stock for cash | 6,440,123 | 64 | 590,205 | — | 590,269 |
| Issuance of common stock in exchange for professional services | 101,220 | 1 | 9,107 | — | 9,108 |
| Net loss | — | — | — | — | — |
| BALANCE AT DECEMBER 31, 2002 | 6,541,343 | 65 | 599,312 | — | 599,377 |
| Issuance of common stock for cash, net of issuance costs | 37,958 | — | 4,937 | — | 4,937 |
| Issuance of common stock in exchange for licensed technology | 203,483 | 2 | 80,410 | — | 80,412 |
| Net loss | — | — | — | (295,790) | (295,790) |
| BALANCE AT DECEMBER 31, 2003 | 6,782,784 | 67 | 684,659 | (295,790) | 388,936 |
| Net loss | — | — | — | (342,761) | (342,761) |
| BALANCE AT DECEMBER 31, 2004 | 6,782,784 | 67 | 684,659 | (638,551) | 46,175 |
| Issuance of common stock for cash, net of issuance costs | 610,664 | 6 | 835,862 | — | 835,868 |
| Net loss | — | — | — | (481,837) | (481,837) |
| BALANCE AT DECEMBER 31, 2005 | 7,393,448 | 73 | 1,520,521 | (1,120,388) | 400,206 |
| Issuance of common stock for cash, net of issuance costs | 2,202,179 | 22 | 7,097,050 | — | 7,097,072 |
| Common stock repurchased | (43,819) | — | (31,667) | — | (31,667) |
| Stock-based compensation | — | — | 43,994 | — | 43,994 |
| Net loss | — | — | — | (963,440) | (963,440) |
| BALANCE AT DECEMBER 31, 2006 | 9,551,808 | 95 | 8,629,898 | (2,083,828) | 6,546,165 |
| Issuance of common stock for cash, net of issuance costs | 60,250 | 1 | 249,999 | — | 250,000 |
| Exercise of warrant to purchase common stock | 75,045 | 1 | 249,999 | — | 250,000 |
| Stock-based compensation | — | — | 570,392 | — | 570,392 |
| Net loss | — | — | — | (5,090,325) | (5,090,325) |
| BALANCE AT DECEMBER 31, 2007 | 9,687,103 | 97 | 9,700,288 | (7,174,153) | 2,526,232 |
| Issuance of common stock for cash, net of issuance costs | 3,132,999 | 31 | 12,931,531 | — | 12,931,562 |
| Stock-based compensation | — | — | 477,488 | — | 477,488 |
| Net loss | — | — | — | (6,090,715) | (6,090,715) |
| BALANCE AT DECEMBER 31, 2008 | 12,820,102 | 128 | 23,109,307 | (13,264,868) | 9,844,567 |
| Stock-based compensation | — | — | 502,199 | — | 502,199 |
| Net loss | — | — | — | (6,219,873) | (6,219,873) |
| BALANCE AT DECEMBER 31, 2009 | 12,820,102 | 128 | 23,611,506 | (19,484,741) | 4,126,893 |
| Stock-based compensation | — | — | 353,340 | — | 353,340 |
| Intrinsic value of beneficial conversion feature associated with convertible debt issued in exchange for cash | — | — | 213,792 | — | 213,792 |
| Net loss | — | — | — | (4,560,263) | (4,560,263) |
| BALANCE AT DECEMBER 31, 2010 | 12,820,102 | 128 | 24,178,638 | (24,045,004) | 133,762 |
| Stock-based compensation | — | — | 58,462 | — | 58,462 |
| Net loss | — | — | — | (965,252) | (965,252) |
| BALANCE AT MARCH 31, 2011 (unaudited) | 12,820,102 | \$ 128 | \$ 24,237,100 | \$ (25,010,256) | \$ (773,028) |

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

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

| | Three Months Ended | | Year Ended | | Cumulative |
|---|---------------------------|---------------------|---------------------|--------------------|---------------------|
| | March 31, | | December 31, | | Development- |
| | 2011 | 2010 | 2010 | 2009 | Stage Period |
| | <u>(unaudited)</u> | <u>(unaudited)</u> | <u>(audited)</u> | <u>(audited)</u> | <u>from</u> |
| | | | | | November 7, |
| | | | | | 2002 through |
| | | | | | December 31, |
| | | | | | 2010 |
| | | | | | <u>(audited)</u> |
| Net loss | \$ (965,252) | \$ (1,776,399) | \$ (4,560,263) | \$ (6,219,873) | \$ (24,045,004) |
| Adjustments to reconcile net loss to cash used in operating activities: | | | | | |
| Depreciation and amortization | 144,174 | 145,675 | 580,114 | 576,745 | 1,831,197 |
| Stock-based compensation | 58,462 | 119,660 | 353,340 | 502,199 | 1,947,413 |
| Intrinsic value of beneficial conversion feature associated with convertible debt | — | 213,792 | 213,792 | — | 213,792 |
| Issuance of stock for technology and services | — | — | — | — | 89,520 |
| Impairment of intangible assets | — | — | 19,671 | — | 19,671 |
| Loss on disposal of fixed assets | — | — | — | 1,607 | 30,468 |
| Changes in: | | | | | |
| Prepaid expenses and other current assets | (5,458) | (39,235) | 18,584 | 23,152 | (62,914) |
| Accounts payable | 243,953 | 95,489 | (48,029) | (29,455) | 202,487 |
| Accrued liabilities | 49,430 | (29,594) | (274,678) | 307,586 | 190,394 |
| Accrued interest | 145,802 | 59,042 | 305,049 | — | 305,049 |
| Deferred rent | 4,323 | (4,042) | 9,973 | 62,789 | 115,311 |
| Cash used in operating activities | <u>(324,566)</u> | <u>(1,215,612)</u> | <u>(3,382,447)</u> | <u>(4,775,250)</u> | <u>(19,162,616)</u> |
| CASH FLOWS FROM INVESTING ACTIVITIES: | | | | | |
| Purchases of fixed assets | — | — | (1,652) | (143,347) | (5,368,181) |
| 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 | — | — | — | — | (555,000) |
| Payment for intangible assets | — | — | — | — | (19,671) |
| Cash used in investing activities | <u>—</u> | <u>—</u> | <u>(1,652)</u> | <u>(143,347)</u> | <u>(5,935,852)</u> |
| CASH FLOWS FROM FINANCING ACTIVITIES: | | | | | |
| Proceeds from issuance of convertible notes | — | 2,720,985 | 2,720,985 | — | 2,720,985 |
| Proceeds from long-term obligations | — | — | 450,000 | — | 1,677,945 |
| Payments on long-term obligations | (49,998) | (46,618) | (190,789) | (177,807) | (552,201) |
| Payments on capital lease obligations | (508) | — | (1,944) | (619) | (2,563) |
| Proceeds from issuance of common stock, net of issuance costs | — | — | — | — | 21,709,708 |
| Proceeds from exercise of warrant | — | — | — | — | 250,000 |
| Repurchase of common stock | — | — | — | — | (31,667) |
| Change in deferred issuance costs | — | (44,075) | 99,461 | (99,461) | — |
| Cash provided by (used in) financing activities | <u>(50,506)</u> | <u>2,630,292</u> | <u>3,077,713</u> | <u>(277,887)</u> | <u>25,772,207</u> |
| INCREASE (DECREASE) IN CASH AND EQUIVALENTS | (375,072) | 1,414,680 | (306,386) | (5,196,484) | 673,739 |
| CASH AND EQUIVALENTS AT BEGINNING OF PERIOD | 673,739 | 980,125 | 980,125 | 6,176,609 | — |
| CASH AND EQUIVALENTS AT END OF PERIOD | \$ 298,667 | \$ 2,394,805 | \$ 673,739 | \$ 980,125 | \$ 673,739 |
| SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION | | | | | |
| Interest paid | <u>\$ 11,563</u> | <u>\$ 14,942</u> | <u>\$ 55,454</u> | <u>\$ 68,436</u> | <u>\$ 194,973</u> |

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

NOVELOS THERAPEUTICS, INC.
(a Development Stage Company)
NOTES TO FINANCIAL STATEMENTS

(ALL INFORMATION AS OF AND FOR THE THREE MONTHS ENDED
MARCH 31, 2011 AND 2010 IS UNAUDITED)

1. NATURE OF BUSINESS, ORGANIZATION AND GOING CONCERN

Novelos Therapeutics, Inc. (“Novelos” or the “Company”) is a pharmaceutical company developing compounds for the treatment of cancer. On April 8, 2011, Novelos entered into a business combination with Celectar, Inc. (“Celectar”), a privately held Wisconsin corporation that designed and developed products to detect, treat and monitor a wide variety of human cancers, and Cell Acquisition Corp. (the “Merger Subsidiary”), a Wisconsin corporation and a wholly owned subsidiary of Novelos. Pursuant to the transaction Celectar was merged into the Merger Subsidiary (the “Acquisition”, see Note 15). References in these financial statements and notes to “Celectar” relate to the activities and financial information of Celectar 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.

Immediately prior to the Acquisition, Novelos completed a 1-for-153 reverse split of its common stock (the “Reverse Split”). Novelos then issued to the shareholders of Celectar at that date 17,001,596 shares of its common stock as consideration for the Acquisition, representing a ratio of 0.8435 shares of Novelos common stock in exchange for one share of Celectar common stock (the “Exchange Ratio”). The shares issued to Celectar shareholders in the Acquisition constituted approximately 85% of Novelos’ outstanding common stock after giving effect to the Acquisition. Upon the closing of the Acquisition, the Company completed the private placement of 6,846,537 shares of its common stock and warrants to purchase an additional 6,846,537 shares of its common stock for gross proceeds of approximately \$5,135,000.

Accounting principles generally accepted in the United States require that a company whose security holders retain the majority voting interest in the combined business be treated as the acquirer for financial reporting purposes. Accordingly, the Acquisition will be accounted for as a reverse acquisition whereby Celectar, Inc. will be treated as the acquirer for accounting and financial reporting purposes. As such, the financial statements presented herein represent the historical financial information of Celectar. All per share amounts and outstanding shares, including all common stock equivalents, and stock options, have been retroactively restated in these financial statements and notes for all periods presented to reflect the Exchange Ratio. The number of authorized shares of common stock disclosed on the balance sheet (150,000,000) represents the number of authorized shares of Novelos common stock following the Acquisition. Additionally, on the accompanying balance sheets and statements of stockholders’ equity (deficiency) the aggregate par value of the issued common stock was reduced to reflect the \$0.00001 par value of Novelos common stock associated with the shares of Celectar common stock adjusted for the Exchange Ratio and the difference was reclassified to additional paid-in capital.

As a result of the Acquisition, the Company has implemented a revised business plan focused on the development of the Celectar compounds. Development of Novelos’ other compounds (NOV-002 and NOV-205) has been suspended. The Company will conduct its operations from Celectar’s headquarters in Madison, WI and the Company’s executive offices will remain in Newton, MA.

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 the basis which assumes that the Company will continue as a going concern and which contemplates the continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the normal course of business. Celectar has incurred losses since inception in devoting substantially all of its efforts toward research and development and has an accumulated deficit of \$24,045,004 at December 31, 2010. During the year ended December 31, 2010, Celectar generated a net loss of \$4,560,263 and the Company expects that it will continue to generate operating losses for the foreseeable future. The Company believes that its cash on hand following the Acquisition, plus the proceeds from the private placement completed in connection with the Acquisition is adequate to fund operations into the fourth quarter of 2011. 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.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements reflect the application of certain accounting policies, as described in this note and elsewhere in the accompanying notes to the financial statements.

The accompanying unaudited March 31, 2011 balance sheet, the statements of operations and cash flows for the three months ended March 31, 2011 and 2010, and the statements stockholders' deficit for the three months ended March 31, 2011 and the related interim information contained within the notes to the 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 financial statements reflect all adjustments, consisting of normal and recurring adjustments, necessary for the fair presentation of the Company's financial position at March 31, 2011 and results of its operations and its cash flows for the three months ended March 31, 2011 and 2010 and the period from November 7, 2002 (inception) to March 31, 2011. The results for the three months ended March 31, 2011 are not necessarily indicative of future results.

Development Stage Company — Collectar has been in the development stage since its inception. The primary activities since inception have been organizational activities, research and development and raising capital. No significant revenues have been generated from planned principal operations. As of March 31, 2011 and December 31, 2010 and 2009 the Company continues to be in the development stage.

The summary unaudited condensed statement of operations for the cumulative development-stage period from November 7, 2002 (date of inception) through March 31, 2011 is as follows:

| | |
|--|---------------------|
| COSTS AND EXPENSES: | |
| Research and development | \$ 17,677,363 |
| General and administrative | 7,405,264 |
| Total costs and expenses | <u>25,082,627</u> |
| LOSS FROM OPERATIONS | <u>(25,082,627)</u> |
| OTHER INCOME | <u>72,371</u> |
| NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS | \$ (25,010,256) |
| BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | \$ (2.60) |
| SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | <u>9,610,158</u> |

The summary unaudited condensed statement of cash flow for the cumulative development-stage period from November 7, 2002 (date of inception) through March 31, 2011 is as follows:

| | |
|---|---------------------|
| Net loss | \$ (25,010,256) |
| Adjustments to reconcile net loss to cash used in operating activities | 4,334,697 |
| Changes in working capital | <u>1,188,377</u> |
| Cash used in operating activities | <u>(19,487,182)</u> |
| CASH FLOWS FROM INVESTING ACTIVITIES: | |
| Purchases of fixed assets, net of \$7,000 proceeds from sale of fixed assets | (5,361,181) |
| Change in restricted cash | (555,000) |
| Payment for intangible assets | <u>(19,671)</u> |
| Cash used in investing activities | <u>(5,935,852)</u> |
| CASH FLOWS FROM FINANCING ACTIVITIES: | |
| Proceeds from issuance of common stock and warrants, net of issuance costs and repurchase of common stock | 21,928,041 |
| Proceeds from issuance of long-term obligations | 4,398,930 |
| Payments on long-term obligations | <u>(605,270)</u> |
| Cash provided by financing activities | <u>25,721,701</u> |
| INCREASE IN CASH AND EQUIVALENTS | 298,667 |
| CASH AND EQUIVALENTS AT BEGINNING OF PERIOD | — |
| CASH AND EQUIVALENTS AT END OF PERIOD | <u>\$ 298,677</u> |
| SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION | |
| Interest paid | <u>\$ 206,536</u> |

Use of Estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and judgments that may affect the reported amounts of assets, liabilities, revenue and expenses and disclosure of contingent assets and liabilities. On an on-going basis, management evaluates its estimates including those related to unbilled vendor amounts and share-based compensation. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from those estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

Cash and Cash Equivalents — All short-term investments purchased with original maturities of three months or less are considered to be cash equivalents.

Restricted Cash — Restricted cash at March 31, 2011, December 31, 2010 and December 31, 2009 consists of a certificate of deposit required for collateral for a promissory note with a bank (see Note 6) and a certificate of deposit required under the Company's lease agreement (see Note 12).

Fixed Assets — Property and equipment are stated at cost. Depreciation on property and equipment is provided using the straight-line method over the estimated useful lives of the assets (5 years). Due to the significant value of leasehold improvements purchased during the initial 3-year lease term and the economic penalty for not extending the building lease, leasehold improvements are depreciated over 17 years (their estimated useful life) which represents the full term of the lease, including all extensions (Note 12).

Intangible Assets — Intangible assets at December 31, 2009 consisted of costs incurred to obtain trademarks. These costs were capitalized when the expense was incurred and at which time the assets were deemed to have an indefinite life. During 2010, following a reduction in staff and suspension of research and manufacturing activities in order to reduce operating costs, it was determined that the trademarks had been impaired and the carrying value was reduced to zero.

Impairment of Long-Lived Assets — 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.

Stock-Based Compensation — Employee stock-based compensation is accounted for in accordance with the guidance of Financial Accounting Standards Board Accounting Standards Codification ("FASB ASC") Topic 718, *Compensation – Stock Compensation* which requires all share-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values. 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.

Research and Development — Research and development costs are expensed as incurred.

Income Taxes — Income taxes are accounted for using the liability method of accounting. Under this method, deferred tax assets and liabilities are determined based on temporary differences between the financial statement and tax basis of assets and liabilities and net operating loss and credit carryforwards using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established when it is more likely than not that some portion of the deferred tax assets will not be realized. Management has provided a full valuation allowance against the Company's gross deferred tax asset. Tax positions taken or expected to be taken in the course of preparing tax returns are required to be evaluated to determine whether the tax positions are "more likely than not" of being sustained by the applicable tax authority. Tax positions deemed not to meet a more-likely-than-not threshold would be recorded as tax expense in the current year. There were no uncertain tax positions that require accrual or disclosure to the financial statements as of December 31, 2010 and 2009.

Comprehensive Loss — There were no components of comprehensive loss other than net loss in all of the periods presented.

Grant Income — Cellerar received a cash grant of \$44,000 and \$200,000 for the three-month period ended March 31, 2011 and the year ended December 31, 2010, respectively from the U.S. Internal Revenue Service as a qualifying therapeutic discovery project credit pursuant to the Patient Protection and Affordable Care Act. This grant has been recorded as a component of other income.

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, investments and accounts payable, approximates fair value due to their short-term nature. The estimated fair value of the convertible debt, determined on an as-converted basis including conversion of accumulated unpaid interest, was approximately \$3,421,000 and \$3,264,000 at March 31, 2011 and December 31, 2010, respectively. The carrying value of long-term obligations, including current portion, approximates fair value because the fixed interest rate approximates current market rate of interest available in the market.

Concentration of Credit Risk — Financial instruments that subject the Company to credit risk consist of cash and equivalents on deposit with financial institutions, which may exceed federally insured limits. Excess cash is invested on an overnight basis in an investment account that is fully collateralized principally by government-backed obligations. Cash and equivalent balances are maintained with a stable and well-capitalized financial institution.

New Accounting Pronouncements — In January 2010, the FASB issued ASU No. 2010-06, *Improving Disclosures about Fair Value Measurements*, which requires additional disclosures about the amounts of and reasons for significant transfers in and out of Level 1 and Level 2 fair value measurements. This standard also clarifies existing disclosure requirements related to the level of disaggregation of fair value measurements for each class of assets and liabilities and disclosures about inputs and valuation techniques used to measure fair value for both recurring and non-recurring Level 2 and Level 3 measurements. Since this new accounting standard only required additional disclosure, the adoption of the standard in the first quarter of 2010 did not impact the accompanying financial statements. Additionally, effective for interim and annual periods beginning after December 15, 2010, this standard will require additional disclosure and require an entity to present disaggregated information about activity in Level 3 fair value measurements on a gross basis, rather than one net amount. The adoption of this accounting standard did not impact the accompanying financial statements.

In December 2010, the FASB issued ASU No. 2010-29, *Disclosures of Supplementary Pro Forma Information for Business Combinations*, which, if comparative financial statements are presented, requires the supplemental pro forma disclosure of revenue and earnings to be presented as if the business combination had occurred at the beginning of the comparable prior annual reporting period only. This standard also expands the supplemental pro forma disclosures required under FASB ASC Topic 850, *Business Combinations*, to include a description of the nature and amount of material nonrecurring pro forma adjustments directly attributable to the business combination in the reported pro forma revenue and earnings. This standard is effective for the Company for any business combinations completed after January 1, 2011. The Company adopted the provisions of this standard during the first quarter of 2011.

In May 2011, the FASB issued ASU No. 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. Generally Accepted Accounting Principles ("GAAP") and International Financial Reporting Standards ("IFRSs")*. This standard updates accounting guidance to clarify the measurement of fair value to align the guidance and improve the comparability surrounding fair value measurement within GAAP and IFRSs. The standard also updates requirements for measuring fair value and expands the required disclosures. The standard does not require additional fair value measurements and was not intended to establish valuation standards or affect valuation practices outside of financial reporting. This standard will become effective for the Company on January 1, 2012. The Company does not expect that the adoption of this standard will have a material impact on the Company's financial statements or required disclosures.

Reclassifications — Certain prior-year amounts have been reclassified to conform to the current-year presentation.

3. FIXED ASSETS

Fixed assets consisted of the following at December 31:

| | <u>2010</u> | <u>2009</u> |
|--|----------------------------|----------------------------|
| Office and laboratory equipment | \$ 2,984,375 | \$ 2,982,723 |
| Leasehold improvements | 2,317,597 | 2,317,597 |
| Total fixed assets | 5,301,972 | 5,300,320 |
| Less accumulated depreciation and amortization | (1,791,483) | (1,211,369) |
| Fixed assets, net | <u>\$ 3,510,489</u> | <u>\$ 4,088,951</u> |

During the three months ended March 31, 2011, the change to net fixed assets consisted of an increase of \$144,000 to accumulated depreciation and amortization.

4. LICENSE AGREEMENTS

2003 License Agreement with the University of Michigan

In September 2003, Cellectar entered into a license agreement (the “Michigan Agreement”) with the Regents of the University of Michigan, (“Michigan”) under which an exclusive license was granted, with the right to grant sublicenses, to develop, manufacture, and market products under several patents which expire at varying dates in 2016. The Michigan Agreement expires upon the expiration of the last covered patent. The Company is responsible for an annual license fee of \$10,000 and is required to pay costs associated with the maintenance of the patents covered by the Michigan Agreement. Additionally, the Company would be required to pay a milestone fee of \$50,000 upon filing a New Drug Application (“NDA”) with the Federal Drug Administration (“FDA”) for a licensed product intended for use in a diagnostic application and \$50,000 upon filing an NDA with the FDA for a licensed product for use in a therapeutic indication; such milestone fees may be deferred and paid within 12 months of the first commercial sale of such products. Milestone payments of \$100,000 and \$200,000 are required to be paid within 12 months of the first commercial sale of diagnostic and therapeutic products, respectively. The Michigan Agreement provides that the Company pay a royalty equal to 3% of net sales of any licensed products sold by the Company or its sublicensees for such licensed products, provided however if the sublicense fee payable to the Company is less than 5%, then the royalties payable to Michigan shall be equal to 50% of the sublicense fee. Furthermore, the Michigan Agreement provides for a reduction in the royalties owed by up to 50% if the Company is required to pay royalties to any third parties related to the sale of the licensed products.

Cellectar paid \$300 and \$5,000 to Michigan for the reimbursement of patent maintenance fees during the years ended December 31, 2010 and 2009, respectively. There were no payments made in the three-month period ended March 31, 2011. As of December 31, 2010, all annual license fees have been paid in a timely manner.

In connection with the Michigan Agreement, during 2003 Cellectar issued 203,483 shares of common stock to Michigan as partial consideration for the rights described above. The estimated fair-market value of the issuance was \$80,412 and was recorded as a license cost and is included as a component of stockholders equity in the accompanying balance sheets.

2005 License Agreement with Wisconsin Alumni Research Foundation

In January 2005, Cellectar entered into a license agreement (the “WARF Agreement”) with the Wisconsin Alumni Research Foundation (“WARF”) under which Cellectar received a license, with a right to grant sublicenses, to develop, manufacture, and market products with respect to certain patents. The WARF Agreement required an initial license fee of \$8,800 and provided that Cellectar pay royalties equal to 0.3% of sales of any licensed products. Cellectar was also required to reimburse WARF for patent filing fees and related costs. During the years ended December 31, 2010 and 2009, there were no costs related to the patents under the WARF Agreement. In June 2010, the WARF Agreement was terminated.

5. CONVERTIBLE DEBT

On January 25, 2010, Collectar issued nine convertible promissory notes (“Convertible Notes”) in an aggregate principal amount of \$2,720,985. The Convertible Notes provided for interest of 12% compounded annually with a maturity date of the earlier of (i) the date on which Collectar’s cash reserves fall below \$250,000 or (ii) January 20, 2011. Upon an event of default, as defined, the interest rate increased by 10% to 22%. The outstanding principal balance, together with any unpaid interest, was convertible immediately, by the lender, into common stock of the Company at \$0.82987 per share. Furthermore, the Convertible Notes were subject to an automatic conversion feature, equal to 70% of the per share price of the qualified financing, should the Company complete a qualified financing transaction which raises at least \$20,000,000 in proceeds to the Company. Since the Convertible Notes were convertible into common stock at date of issuance at a per share price which was less than the estimated fair value of the Company’s common stock at that date, the Convertible Notes contained a beneficial conversion feature (“BCF”). The estimated intrinsic value of the BCF was \$214,000 and was recorded as a component of interest expense on the date of issuance. Since the conversion price was subject to adjustment in the event of a qualified transaction, as defined, the Convertible Notes also contain a contingent beneficial conversion feature (“CBCF”). Since this contingency was not resolved, no intrinsic value was allocated to the CBCF. As of December 31, 2010 and 2009, principal of \$2,720,985 and \$0 was outstanding, respectively, on the Convertible Notes.

On January 20, 2011, the Convertible Notes matured but remain unpaid. On January 31, 2011, the holders of the Convertible Notes agreed to convert the principal and unpaid interest, immediately prior to the Acquisition, into a fixed total of 4,181,535 shares of common stock of the Company (see Note 15), provided that the note holders invested an aggregate minimum amount in the private placement that was completed in connection with the Acquisition. Such conversion occurred on April 8, 2011. The revised conversion terms resulted in the issuance of an additional 343,963 shares of common stock than would have been issued if the Convertible Notes had been converted in accordance with their original terms. The value of these additional shares of \$258,000 will be recorded as a component of interest expense in the quarter ended June 30, 2011.

The Convertible Notes are classified as a long-term obligation on the accompanying balance sheets as a result of the conversion of the short-term obligation through the issuance of equity securities in connection with the Acquisition.

6. LONG-TERM NOTES PAYABLE

On January 11, 2008, Collectar entered into a loan agreement with a bank to borrow up to \$1,200,000. The borrowing, evidenced by a note (the “Bank Note”), bore interest at a rate of 7.01% per annum, could be prepaid without penalty and was payable in 48 monthly principal and interest payments of \$20,520 with a balloon payment of any remaining unpaid principal and interest on March 28, 2012. In the event of default of payment, Collectar would be required to pay a late charge equal to 5% of the delinquent payment and the interest rate on the unpaid principal would be increased by 3%. The Bank Note was collateralized by substantially all assets of Collectar and a deposit account in the amount of \$500,000. The cash collateral is classified as restricted cash in the accompanying balance sheet. As of December 31, 2010 and 2009, \$470,941 and \$675,743 are classified as a long-term note payable in the accompanying balance sheet, respectively. On April 8, 2011, Collectar paid the remaining balance of the Bank Note in full immediately prior to the closing of the Acquisition (see Note 15).

On September 15, 2010, Collectar entered into certain loan agreements with the Wisconsin Department of Commerce (“WDOC Notes”) to borrow a total of \$450,000. The WDOC Notes bear interest at 2% per annum beginning on the date of disbursement and allow for the deferral of interest and principal payments until April 30, 2015. In the event of default of payment, interest on the delinquent payment is payable at a rate equal to 12% per annum. Monthly payments of \$20,665 for principal and interest shall commence on May 1, 2015 and continue for 23 equal installments with the final installment of any remaining unpaid principal and interest due on April 1, 2017. As of December 31, 2010, \$450,000 is classified as a long-term note payable in the accompanying balance sheet.

Long-term notes payable consists of the following as of December 31:

| | <u>2010</u> | <u>2009</u> |
|--|-------------------|-------------------|
| Bank Note, 7.01% interest | \$ 675,743 | \$ 866,532 |
| Wisconsin Department of Commerce, 2% interest | 450,000 | — |
| | <u>1,125,743</u> | <u>866,532</u> |
| Less current portion | (204,802) | (190,789) |
| Long-term note payable, net of current portion | <u>\$ 920,941</u> | <u>\$ 675,743</u> |

As of December 31, 2010, long-term notes payable matures as follows:

| | |
|--------------------------|---------------------|
| Years ended December 31, | |
| 2011 | \$ 204,802 |
| 2012 | 470,941 |
| 2013 | — |
| 2014 | — |
| 2015 | 119,957 |
| Thereafter | 330,043 |
| | <u>\$ 1,125,743</u> |

During the three-month period ended March 31, 2011, payments of \$50,000 were made in connection with the Bank Note.

7. LINE OF CREDIT

In 2009, Collectar had a \$100,000 line of credit with a bank. Borrowings under the line of credit bore interest at LIBOR plus 3.25% with a 4.5% minimum rate. The line of credit expired on January 10, 2010 and was not renewed. There were no amounts outstanding under the line as of December 31, 2009.

8. STOCKHOLDERS' EQUITY (DEFICIENCY)

On January 1, 2008, Collectar converted from a Wisconsin limited liability company to a Wisconsin corporation (the "Conversion"). Each issued and outstanding unit of equity in the limited liability company immediately prior to the Conversion was converted into one issued and outstanding share of Collectar common stock and each unexercised unit option outstanding immediately prior to the Conversion was converted into an option to acquire the same number of shares of the corporation's common stock. For purposes of presentation in these financial statements, all amounts and disclosures related to equity issuances prior to the Conversion have been retroactively restated to reflect the issuance of Novelos common stock, applying the Exchange Ratio, rather than member units in the limited liability company. All issuances of Collectar common stock after the Conversion have been retroactively restated to reflect the Exchange Ratio.

From inception until December 31, 2010, Collectar issued 12,559,218 shares of common stock for net proceeds of approximately \$21,710,000.

The following shares were reserved for future issuance upon exercise of stock options or conversion of debt:

| | March 31, 2011 (unaudited) | December 31, | |
|---|---|---------------------|----------------|
| | | 2010 | 2009 |
| Stock options | — | 769,189 | 991,736 |
| Convertible notes | 3,822,062 | 3,646,370 | — |
| Total number of shares reserved for future issuance | <u>3,822,062</u> | <u>4,415,559</u> | <u>991,736</u> |

9. STOCK-BASED COMPENSATION

Collectar's stock-based compensation plans prior to the Acquisition are summarized below:

2006 Unit Option Plan. The 2006 Unit Option Plan (the "2006 Plan"), as amended and restated, provided Collectar the ability to grant to employees, directors, consultants, and other non-employees units of interest in Collectar. The maximum aggregate number of shares that were subject to grant under the 2006 Plan was 1,012,200.

Collectar granted 631,360 unit options under the 2006 Plan and no additional grants will be made thereunder. In connection with the Conversion described in Note 8, each issued and outstanding unexercised unit option outstanding immediately prior to the Conversion was converted into an option to acquire the same number of shares of Collectar's common stock. A total of 606,889 and 691,248 options to purchase shares of Collectar's common stock were outstanding under the 2006 Plan as of December 31, 2010 and 2009, respectively. These options generally vested annually over four years and expire on the eighth anniversary of the grant date. No options were granted under the 2006 Plan during 2010 or 2009. There have been no exercises of options issued under the 2006 Plan. On March 17, 2011, in contemplation of the Acquisition, Collectar terminated the remaining options outstanding under the 2006 Plan as of that date (Note 15).

2008 Stock Incentive Plan. The 2008 Stock Incentive Plan (the "2008 Plan") provided Collectar the ability to grant to employees, directors, consultants and other non-employees of Collectar options to purchase common stock. The maximum aggregate number of shares that were subject to grant under the 2008 Plan was 823,930. Collectar granted a total of 382,223 options under the 2008 Plan. A total of 162,300 and 300,488 options to purchase shares of Collectar's common stock were outstanding as of December 31, 2010 and 2009, respectively. These options generally vested annually over four years and expire on the tenth anniversary of the grant date. During 2009, 90,929 options were granted under the 2008 Plan. During 2010, no options were granted under the 2008 Plan. No options have been exercised. On March 17, 2011, in contemplation of the Acquisition, Collectar terminated the remaining options outstanding under the 2008 Plan (Note 15).

As of December 31, 2010, an aggregate of 1,066,941 shares were available for grant under the 2006 Plan and 2008 plan.

The board of directors determines exercise prices and vesting periods on the date of grant, subject to the provisions of the 2006 Plan and 2008 Plan. Options have been granted at or above the estimated fair-market value of the common stock at the grant date. Options granted pursuant to the 2006 Plan and 2008 Plan generally will become fully vested in the event of a business combination whereby the options are not assumed or replaced by the surviving company, as defined.

Post-Acquisition Option Grants. Option grants to directors and employees following the Acquisition will be made under the Novelos Therapeutics 2006 Stock Incentive Plan (the "Novelos 2006 Plan"). See Note 15 for a description of amendments to and option grants made under the Novelos 2006 Plan in May 2011.

Accounting for Stock-Based Compensation

Employee stock-based compensation is accounted for in accordance with the guidance of FASB ASC Topic 718, *Compensation – Stock Compensation* which requires all share-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values. 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 | | Year Ended | | Cumulative Development- Stage Period from November 7, 2002 through December 31, 2010 |
|--|--------------------------|------------|--------------|------------|---|
| | March 31, (unaudited) | | December 31, | | |
| | 2011 | 2010 | 2010 | 2009 | 2010 |
| Employee and director stock option grants: | | | | | |
| Research and development | \$ 23,526 | \$ 21,024 | \$ 61,791 | \$ 87,598 | \$ 298,386 |
| General and administrative | 34,936 | 98,636 | 291,549 | 414,401 | 1,577,303 |
| | 58,462 | 119,660 | 353,340 | 501,999 | 1,875,689 |
| Non-employee consultant stock option grants: | | | | | |
| Research and development | — | — | — | 200 | 71,724 |
| Total stock-based compensation | \$ 58,462 | \$ 119,660 | \$ 353,340 | \$ 502,199 | \$ 1,947,413 |

On July 14, 2010, the expiration date of vested options held by a former employee was extended until July 8, 2015. The extension constituted a modification to the terms of the award and additional stock-based compensation was measured as the excess of the fair value of the modified award over the fair value of the original award immediately before the modification. Accordingly, incremental stock-based compensation expense of \$20,000 was recorded in connection with the modification.

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.

Volatility. Volatility is estimated based on a review of volatility estimates of publicly held drug development companies in a similar stage of development.

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 expected term is generally applied, with respect to employees, to one group as a whole as the Company does not expect substantially different exercise or post-vesting termination behavior within its population of option holders. 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 Company did not have significant historical experience and there have been no stock option exercises to date. 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 expected term for non-employee awards represents the contractual life of the stock options granted.

Forfeitures. Stock-based compensation expense is recorded only for those awards that are expected to vest. FASB ASC Topic 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The term "forfeitures" is distinct from "cancellations" or "expirations" and represents only the unvested portion of the surrendered option. An annual forfeiture rate of 0% was applied to all unvested options as of December 31, 2010 as very few forfeitures had been experienced through 2009 and there is insufficient history to develop an accurate estimate of future forfeitures. This analysis will be re-evaluated semi-annually and the forfeiture rate will be adjusted as necessary. 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:

| | Year Ended December 31, 2009 |
|--|---|
| Volatility | 85% |
| Risk-free interest rate | 1.72%-1.91% |
| Expected life (years) | 6.25 |
| Dividend | 0% |
| Weighted-average exercise price | \$ 0.76 |
| Weighted-average grant-date fair value | \$ 0.55 |

There were no stock options granted during the year ended December 31, 2010.

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 November 7, 2002 | — | | | |
| Granted | 922,654 | \$ 2.52 | | |
| Forfeited | (12,653) | \$ 3.04 | | |
| Outstanding at January 1, 2009 | 910,001 | \$ 2.86 | | |
| Granted | 90,929 | \$ 0.76 | | |
| Forfeited | (9,194) | \$ 2.72 | | |
| Outstanding at December 31, 2009 | 991,736 | \$ 2.68 | | |
| Canceled | (222,547) | \$ 2.63 | | |
| Outstanding at December 31, 2010 | 769,189 | \$ 2.69 | | |
| Canceled | (769,189) | \$ 2.69 | | |
| Outstanding at March 31, 2011 (unaudited) | — | | | |
| Vested and expected to vest, December 31, 2010 | 769,189 | \$ 2.69 | 4.07 | \$ — |
| Exercisable at December 31, 2010 | 743,450 | \$ 2.69 | 4.07 | \$ — |
| Exercisable at March 31, 2011 (unaudited) | — | | | \$ — |

The aggregate intrinsic value of options outstanding is calculated based on the positive difference between the estimated per share fair value of Collectar's common stock at the end of the respective period and the exercise price of the underlying options. The estimated fair-market value of Collectar's common stock at the end of the periods shown was less than the exercise price of the underlying options, as such, the aggregate intrinsic value is \$0. There have been no option exercises to date.

The weighted-average grant-date fair value of options granted during the year ended December 31, 2009 and for the period November 2, 2002 to December 31, 2009 was \$0.55 and \$1.90, respectively. There were no options granted during the year ended December 31, 2010. The total fair value of shares vested during December 31, 2010 and 2009 and for the period November 2, 2007 (date of inception) to December 31, 2010 was \$199,600, \$185,600 and \$2,050,000, respectively. The weighted-average grant-date fair value of vested and unvested options outstanding at December 31, 2010 and 2009 was \$2.01 and \$1.91 and \$1.85 and \$1.88, respectively.

As of December 31, 2010, there was approximately \$58,000 and \$0 of total unrecognized compensation cost related to unvested stock-based compensation arrangements related to employees and non-employees, respectively. Of the total unrecognized amount as of December 31, 2010, all was recognized in the three months ended March 31, 2011.

On March 4, 2011, in contemplation of the Acquisition and in accordance with terms of the applicable option agreements, Collectar accelerated the vesting on all outstanding and unvested options at that date and notified all option holders that any unexercised options as of March 17, 2011 would then be terminated. On March 17, 2011, Collectar terminated all outstanding options. The remaining unamortized compensation expense of \$58,000 was recorded related to the acceleration of outstanding options in the quarter ended March 31, 2011. No additional compensation expense was recorded related to the acceleration of unvested shares as the acceleration did not represent a modification to the original terms of the options.

10. INCOME TAXES

Deferred tax assets consisted of the following at December 31:

| | <u>2010</u> | <u>2009</u> |
|---|--------------------|--------------------|
| Deferred tax assets | | |
| Federal net operating loss | \$ 6,116,804 | \$ 4,754,001 |
| Federal research and development tax credit carryforwards | 390,600 | 273,788 |
| Wisconsin net operating loss credit carryforwards | 814,492 | 589,548 |
| Wisconsin research and development tax credit carryforwards | 220,738 | 171,552 |
| Stock-based compensation expense | 552,859 | 415,060 |
| Charitable contribution carryforwards | 49,725 | 49,725 |
| Accrued liabilities | <u>25,327</u> | <u>75,711</u> |
| Total deferred tax assets | 8,170,545 | 6,329,385 |
| Deferred tax liabilities | | |
| Depreciable and intangible assets | <u>(434,056)</u> | <u>(475,524)</u> |
| Total deferred tax liabilities | (434,056) | (475,524) |
| Net deferred tax assets | 7,736,489 | 5,853,861 |
| Less valuation allowance | <u>(7,736,489)</u> | <u>(5,853,861)</u> |
| Total deferred tax assets | \$ — | \$ — |

As of December 31, 2010, Collectar had federal and state net operating loss carryforwards (“NOLs”) of approximately \$15,684,000 and \$15,633,000 respectively, which expire beginning in 2030 and 2025, respectively. In addition, Collectar has federal and state research and development and investment tax credits of approximately \$391,000 and \$335,000, respectively. The amount of NOLs which may be utilized annually in future periods will be limited pursuant to Section 382 of the Internal Revenue Code as a result of substantial changes in the Company’s ownership that have occurred or that may occur in the future. The Company has not quantified the amount of such limitations.

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 gross deferred tax asset.

Collectar did not have unrecognized tax benefits or accrued interest and penalties at any time during the years ended December 31, 2010 and 2009, and does not anticipate having unrecognized tax benefits over the next twelve months. The Company is subject to audit by the IRS for tax periods commencing January 1, 2007.

For the three-month period ended March 31, 2011, the federal and state NOLs increased by approximately \$965,000 as a result of the loss recorded. There were no material changes to the deferred tax assets and liabilities during the three-month period ended March 31, 2011.

11. NET LOSS PER SHARE

Basic net loss per share is computed by dividing net loss attributable to common stockholders 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 attributable to common stockholders, 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 convertible debt. Since there is a net loss attributable to common stockholders for the three months ended March 31, 2011 and 2010 and the years ended December 31, 2010 and 2009, 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 March 31, (unaudited) | | Twelve Months Ended December 31, | | Cumulative Development- Stage Period from November 7, 2002 (inception) through December 31, |
|---------------|---|-----------|-------------------------------------|-----------|--|
| | 2011 | 2010 | 2010 | 2009 | 2010 |
| | Convertible debt | 3,822,062 | 3,349,932 | 3,646,370 | — |
| Stock options | — | 991,736 | 769,189 | 991,736 | 769,189 |

12. COMMITMENTS

Property Lease

On September 5, 2007, Collectar entered into a 36-month lease for office and manufacturing space, commencing September 15, 2007. The lease provides for the option to extend the lease under its current terms for seven additional two-year terms. Rent is \$8,050 per month for the first year and then escalates by 3% per year for the duration of the term including any lease extension terms. The lease also requires the payment of monthly rent of \$1,140 for approximately 3,400 square feet of expansion space. The monthly rent for the expansion space is fixed until such time as the expansion space is occupied at which time the rent would increase to the current per square foot rate in effect under the original lease terms. The Company is responsible for certain building-related costs such as property taxes, insurance, and repairs and maintenance. Rent expense is recognized on a straight-line basis and accordingly the difference between the recorded rent expense and the actual cash payments has been recorded as deferred rent as of each balance sheet dates. Due to the significant value of leasehold improvements purchased during the initial 3-year lease term and the economic penalty for not extending the building lease, straight-line rent expense and the associated deferred rent has been calculated over 17 years, which represents the full term of the lease, including all extensions. Rent expense was \$44,000 and \$33,000 for the three months ended March 31, 2011 and 2010, respectively and \$159,000 and \$180,000 for the years ended December 31, 2010 and 2009, respectively and \$945,000 from inception to December 31, 2010.

The Company is required to remove certain alterations, additions and improvements upon termination of the lease that altered a portion of the rentable space. In no event shall the cost of such removal, at commercially reasonable rates, paid by the Company exceed \$55,000 ("Capped Amount") and any amount in excess of the Capped Amount shall be the obligation of the landlord. The Company is required to maintain a certificate of deposit equal to the Capped Amount during the term of the lease, which amount is shown as restricted cash in the accompanying balance sheets.

Effective June 1, 2010, Collectar entered into a seven-month extension of its office space and effective December 13, 2010 amended the extension to increase the lease extension an additional five-months, expiring May 31, 2011. In connection with the extension, the monthly rent was adjusted to fifty percent of the rent due immediately prior to the extension and the Company could terminate the lease at the end of a month with 10-day written notice. The option was retained, prior to May 31, 2011, to further extend the lease through September 14, 2012, in accordance with the original lease terms provided that it pay the unpaid rent for June 1, 2010 through March 31, 2011, based on the original terms of the lease, plus interest at 10% per annum. As of December 31, 2010, \$45,000 was accrued in the accompanying balance sheet for the unpaid rent and accrued interest. On April 15, 2011, the Company extended the lease through September 14, 2012 and paid all unpaid rent and accrued interest (Note 15).

Future minimum lease payments under this non-cancelable lease are approximately \$196,000 and \$124,000 during 2011 and 2012.

Capital Lease

Certain equipment is leased under a capital lease. The lease agreement requires monthly principal and interest payments of \$217 and expires on September 3, 2014. The outstanding obligation is being amortized using a 7% interest rate based on comparable borrowing rates.

The following table provides the estimated future minimum rental payments under all capital leases together with the present value of the net minimum lease payments as of December 31, 2010:

| | Minimum lease payments | Less interest | Present value of net minimum lease payments |
|------|---------------------------------------|----------------------|--|
| 2011 | \$ 2,608 | \$ 523 | \$ 2,085 |
| 2012 | 2,608 | 373 | 2,235 |
| 2013 | 2,608 | 211 | 2,397 |
| 2014 | 1,739 | 45 | 1,694 |
| | <u>\$ 9,563</u> | <u>\$ 1,152</u> | <u>\$ 8,411</u> |

The equipment recorded under capitalized leases is included in fixed assets as of December 31:

| | 2010 | 2009 |
|-------------------------------|-----------------|------------------|
| Office equipment | \$ 10,973 | \$ 10,973 |
| Less accumulated amortization | (2,928) | (732) |
| | <u>\$ 8,045</u> | <u>\$ 10,241</u> |

13. EMPLOYEE RETIREMENT PLAN

On January 1, 2009, Collectar adopted a Safe Harbor defined contribution plan under Section 401(k) of the Internal Revenue Code which covered eligible employees who meet minimum age requirements and allowed participants to contribute a portion of their annual compensation on a pre-tax basis. Collectar contributed 3% of each participant's compensation. Contributions made for the years ended December 31, 2010 and 2009 were \$23,000 and \$56,000, respectively. Collectar paid administrative expenses for the plan of \$3,300 and \$2,800 for the years ended December 31, 2010 and 2009, respectively. The plan was canceled effective August 30, 2010.

14. RELATED PARTY TRANSACTIONS

Jamey Weichert, the Company's Chief Scientific Officer, director, shareholder and principal founder is a faculty member at the University of Wisconsin-Madison ("UW"). Collectar paid \$16,082 to the UW during 2009 for research related activities. No payments were made to UW during the three months ended March 31, 2011 or the year ended December 31, 2010.

Collectar made contributions of \$25,000 to the UW Foundation, a not-for-profit, tax-exempt Wisconsin corporation, which serves as the official fundraising and gift-receiving organization for the UW and other donor-designated units of the UW System during the year ended December 31, 2009. No contributions were made to UW Foundation during the three months ended March 31, 2011 or the year ended December 31, 2010.

15. SUBSEQUENT EVENTS

The Company evaluates events that occur through the filing date and discloses events or transactions that provide additional evidence with respect to the conditions that existed at the date of the balance sheet.

ACQUISITION

Conversion of Convertible Notes and Payment of Long-Term Debt

On April 8, 2011, immediately prior to the Acquisition, Collectar paid \$627,000 in full settlement of the Bank Note (see Note 6). The payment was made in order to avoid an event of default that would have occurred as a result of the change of control that occurred at the time of the Acquisition.

Also on April 8, 2011, immediately prior to the Acquisition, the Convertible Notes (see Note 5) and accrued interest thereon were converted into a total of 4,181,535 shares of common stock of the Company. The conversion was completed based on the agreement of the holders of the Convertible Notes that provided for an aggregate fixed number of shares of common stock to be issued upon conversion immediately prior to the Acquisition, provided that the note holders invested an aggregate minimum amount in the private placement that was completed in connection with the Acquisition. The conversion resulted in the issuance of an additional 343,963 shares of common stock than would have been issued if the Convertible Notes had been converted in accordance with their original terms. The value of these additional shares will be recorded as a component of interest expense in the quarter ended June 30, 2011.

Merger Agreement

On April 8, 2011, Novelos entered into an Agreement and Plan of Merger (the "Merger Agreement") with Collectar and Cell Acquisition Corp. (the "Merger Subsidiary"), a wholly owned subsidiary of Novelos, pursuant to which Collectar was merged into the Merger Subsidiary (the "Acquisition") on that date. As a result of the Acquisition, the Merger Subsidiary, which has been renamed Collectar, Inc., owns all assets of and operates the business previously owned and operated by Collectar. Prior to the Acquisition, Collectar was in the business of developing drugs for the treatment and diagnosis of cancer. The Company will continue to develop Collectar's compounds following the Acquisition. The Company will conduct its operations from Collectar's headquarters in Madison, WI and the Company's executive offices will remain in Newton, MA.

As consideration for the Acquisition, the former stockholders of Collectar received aggregate consideration consisting of a number of shares of Novelos common stock constituting, after giving effect to the Acquisition but before giving effect to the concurrent private placement of Novelos securities described below, approximately 85% of the outstanding shares of Novelos common stock. Prior to the Acquisition, Novelos amended and restated its certificate of incorporation and in connection therewith, among other things, effected a 1-for-153 reverse split of its common stock (the "Reverse Split"). Immediately prior to the Acquisition, there were approximately 2,959,871 shares of Novelos common stock outstanding. Novelos then issued 17,001,596 shares of Novelos common stock to the stockholders of Collectar upon the effective date of the Acquisition. Warrants and options to purchase Novelos common stock that were outstanding prior to the Acquisition remained outstanding following the Acquisition. These consist of warrants to purchase a total of 315,164 shares of Novelos common stock with prices ranging from \$16.07 to \$191.25 and options to purchase a total of 49,159 shares of Novelos common stock with prices ranging from \$1.53 to \$1,072.53.

Accounting principles generally accepted in the United States require that a company whose security holders retain the majority voting interest in the combined business be treated as the acquirer for financial reporting purposes. Accordingly, the Acquisition will be accounted for as a reverse acquisition whereby Collectar will be treated as the acquirer for accounting and financial reporting purposes. As such, the financial statements presented herein represent the historical financial information of Collectar. All per share amounts and outstanding shares, including all common stock equivalents, and stock options, have been retroactively restated in these financial statements and notes for all periods presented to reflect the Exchange Ratio. The number of authorized shares of common stock disclosed on the balance sheet (150,000,000) represents the number of authorized shares of Novelos common stock immediately prior to the Acquisition. Additionally, on the Company's balance sheets and statements of stockholders' equity (deficiency) the aggregate par value of the issued common stock was reduced to reflect \$0.00001 par value of Novelos common stock associated with the shares of Collectar common stock adjusted for the Exchange Ratio and the difference was reclassified to additional paid-in capital.

XMS Capital Partners, the financial advisor to Collectar in connection with the Acquisition, received a cash fee of \$200,000 upon the completion of the Acquisition in consideration of their services. Rodman & Renshaw, LLC ("Rodman"), financial advisor to Novelos in connection with the Acquisition, received a cash fee of \$250,000 upon the completion of the Acquisition in consideration of their services. These amounts will be recorded as general and administrative expense on the date of Acquisition.

Securities Purchase Agreement

Concurrently with the execution of the Merger Agreement, the Company entered into a Securities Purchase Agreement with certain accredited investors under which the Company sold an aggregate of 6,846,537 units, each unit consisting of one share of its common stock and a warrant to purchase one share of its common stock, at a price of \$0.75 per unit, for gross proceeds of approximately \$5,135,000. The warrants have an exercise price of \$0.75 and expire on March 31, 2016. The warrant exercise price and/or the common stock issuable pursuant to such warrant will be subject to adjustment for stock dividends, stock splits or similar capital reorganizations so that the rights of the warrant holders after such event will be equivalent to the rights of warrant holders prior to such event.

The Securities Purchase Agreement includes a requirement that the Company file with the Securities and Exchange Commission (“SEC”) no later than October 5, 2011, a registration statement covering the resale of the shares of common stock, and the shares of common stock underlying the warrants, issued pursuant to the Securities Purchase Agreement. The Company is also required to use our commercially reasonable efforts to have the registration statement declared effective by December 4, 2011, and to keep the registration statement continuously effective under the Securities Act of 1933, as amended (the “Securities Act”), until the earlier of the date when all the registrable securities covered by the registration statement have been sold or the second anniversary of the closing.

In the event the Company fails to file the registration statement within the timeframe specified by the Securities Purchase Agreement, or if it fails to obtain effectiveness of this registration on or prior to the December 4, 2011 (if there is no review by the SEC) or by January 3, 2012 (if there is review by the SEC) with respect to the maximum number of shares permitted to be registered by the SEC, the Company will be required to pay to the purchasers liquidated damages equal to 1.5% per month (pro-rated on a daily basis for any period of less than a full month) of the aggregate purchase price of the units purchased until the registration statement is filed or declared effective, as applicable. The Company will be allowed to suspend the use of the registration statement for not more than 30 consecutive days, on not more than two occasions, in any 12-month period. The Company has also granted piggy-back registration rights with respect to any shares of common stock that it is required to exclude from the registration statement as a condition of its effectiveness, and has also agreed to file further registration statements with respect to any such shares six months after the effective date of the initial registration statement.

The Company paid to Rodman, the placement agent for the financing, a cash fee equal to \$200,000 and issued warrants to purchase 192,931 shares of its common stock (having an exercise price of \$0.75 and which expire March 31, 2016) in consideration for their advisory services with respect to the financing pursuant to the placement agency agreement between Rodman and the Company. Rodman is entitled to registration rights with respect to the shares of common stock issuable upon exercise of these warrants. The cash fee will be recorded as a reduction of gross proceeds received.

Purchase Accounting

The Acquisition will be accounted for using the purchase method of accounting as a reverse acquisition. In a reverse acquisition, the post-acquisition net assets of the surviving combined company includes the historical cost basis of the net assets of the accounting acquirer, Collectar, plus the fair value of the net assets of the accounting acquiree, Novelos. Further, under the purchase method, the purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair values and the excess of the purchase price over the estimated fair value of the identifiable net assets is presented as excess purchase price over net assets acquired. The cost of acquisition and related purchase-price allocation is based on preliminary evaluation of the fair value of assets and liabilities assumed from Novelos and may change when the final valuation of certain intangible assets is determined. The excess of purchase price over net assets acquired will be allocated to intangibles and goodwill once the Company completes the final allocation of purchase price.

The purchase price as of the acquisition date was \$2,219,903 and was determined based on the fair value of the shares of common stock retained by Novelos shareholders at the date of Acquisition.

The following table summarizes the Company’s preliminary estimated fair values of the assets acquired and the liabilities assumed at the date of acquisition.

| | |
|--|---------------------|
| Consideration - issuance of securities | \$ 2,219,903 |
| Prepaid expenses and other assets | \$ 71,892 |
| Fixed assets | 6,515 |
| Accrued liabilities | (250,008) |
| Deferred revenue | (391,666) |
| Derivative liability | (56,050) |
| Excess of purchase price over net assets acquired | <u>1,933,349</u> |
| Total purchase price – net of cash acquired of \$905,871 | <u>\$ 1,314,032</u> |

The excess of purchase price over net assets acquired will be allocated to intangibles and goodwill once the Company completes the final allocation of purchase price. The Company does not anticipate recording intangibles which have definite lives. The Company expects to complete its final allocation of the purchase price no later than April 7, 2012.

Unaudited Supplemental Pro Forma Information

The table below summarizes revenue and net income (loss) for the periods shown as though the Acquisition occurred at the beginning of the period ending December 31, 2010:

| | For the Three Months Ended March | | For the Twelve |
|-------------------|---|--------------|-----------------------|
| | 31, | | Months Ended |
| | 2011 | 2010 | December 31, |
| | | | 2010 |
| Revenue | \$ 8,333 | \$ 8,333 | \$ 33,334 |
| Net income (loss) | \$ (1,368,609) | \$ 2,734,438 | \$ (4,405,631) |

The pro forma supplemental information has been adjusted for the following:

- 1) Elimination of \$157,000, \$74,000, and \$361,000 of interest expense for the three months ended March 31, 2011 and 2010 and the twelve months ended December 31, 2010, respectively; such amounts relate to interest accrued on the Convertible Notes which were converted immediately prior to the Acquisition (see Note 5) and the Bank Note which was paid in full settlement of the note immediately prior to the Acquisition (see Note 6).
- 2) Recognition of a additional BCF of \$463,000 in the three months ended March 31, 2010 and the year ended December 31, 2010 in connection with the conversion of the Convertible Notes, which is assumed to have occurred on January 1, 2010 for the purpose of pro forma presentation (see Note 5).
- 3) Elimination of \$449,000 and \$77,000 of Acquisition costs incurred during the three months ended March 31, 2011 and the twelve months ended December 31, 2010, respectively, which are assumed to have been incurred prior to January 1, 2010 for the purpose of presentation in the pro forma statements of operations.
- 4) Recognition of \$450,000 of investment banking fees that occurred as a result of the consummation of the Acquisition.
- 5) Elimination of dividends and adjustment of deemed dividends on Novelos' preferred convertible stock, which is assumed to have been exchanged for common stock on January 1, 2010 for the purpose of pro forma presentation.

OTHER SUBSEQUENT EVENTS

Novelos Litigation

Novelos is party to certain legal matters that existed prior to the Acquisition. The following summarizes the status of those matters.

Class Action

A putative federal securities class-action complaint was filed on March 5, 2010 in the United States District Court for the District of Massachusetts by an alleged shareholder of Novelos, on behalf of himself and all others who purchased or otherwise acquired Novelos' common stock in the period between December 14, 2009 and February 24, 2010, against Novelos' President and Chief Executive Officer, Harry S. Palmin. On October 1, 2010, the court appointed lead plaintiffs (Boris Urman and Ramona McDonald) and appointed lead plaintiffs' counsel. On October 22, an amended complaint was filed. The amended complaint claims that Novelos violated Section 10(b) of the Securities Exchange Act of 1934, as amended, and Rule 10b-5 promulgated thereunder in connection with alleged misleading disclosures related to the progress of Phase 3 clinical trial of NOV-002 for advanced non-small-cell lung cancer. On December 6, 2010, the defendants filed a motion to dismiss the complaint with prejudice. On January 20, 2011, the plaintiffs filed the opposition to the motion and on March 3, 2011, the defendants filed their response to the opposition. The motion to dismiss remains pending. The Company believes the allegations are without merit and intends to defend vigorously against the allegations.

BAM Dispute

On June 28, 2010, Novelos received a letter from counsel to ZAO BAM and ZAO BAM Research Laboratories (collectively, "BAM") alleging that Novelos modified the chemical composition of NOV-002 without prior notice to or approval from BAM, constituting a material breach of a technology and assignment agreement Novelos had entered into with BAM on June 20, 2000 (the "June 2000 Agreement"). The letter references Novelos' amendment, submitted to the FDA on August 30, 2005, to its investigational new drug application dated August 1999 as the basis for BAM's claims and demands the transfer of all intellectual property rights concerning NOV-002 to BAM. Mark Balazovsky, a director of Novelos from June 1996 until November 2006 and a shareholder of Novelos through at least June 25, 2010, is, to the Company's knowledge, still the general director and principal shareholder of ZAO BAM, a Russian company. On September 24, 2010, Novelos filed a complaint in Suffolk Superior Court seeking a declaratory judgment by the court that the June 2000 Agreement has been replaced by a subsequent agreement between the parties dated April 1, 2005 (the "April 2005 Agreement"), that Novelos' obligations to BAM are governed solely by the April 2005 Agreement and that the obligations of the June 2000 agreement have been performed and fully satisfied. On November 29, 2010, BAM answered the complaint, denying the material allegations, and stating its affirmative defenses and certain counterclaims. On January 14, 2011, Novelos responded to the counterclaims, denying BAM's material allegations and stating its affirmative defenses. On June 9, 2011, BAM filed an amended counterclaim alleging additional claims related to Novelos' acquisition of Cellerar. In that amended counterclaim, BAM alleges that the acquisition evidences Novelos' abandonment of the technology assigned to it by BAM constituting a breach of the June 2000 Agreement or, if that agreement is determined to no longer be in effect, a breach of the April 2005 Agreement and/or a breach of the implied duty of good faith and fair dealing with respect to the April 2005 Agreement. The Company believes BAM's allegations and counterclaims are without merit and intends to vigorously defend against them.

Lease Extension

On April 15, 2011, the Company extended its building lease for the Madison, WI headquarters through September 14, 2012 according to the terms in the original lease and paid all unpaid rent and related accrued interest.

Amendment to Stock Option Plan and Option Issuances

On May 18, 2011, the board of directors of the Company approved amendments to the Novelos 2006 Stock Incentive Plan (the "Plan") to, among other things, increase the aggregate number of shares of the Company's common stock reserved for issuance under the Plan (including any shares that have already been issued thereunder), to 7,000,000 and remove the 750,000 share annual individual limitation on grants under the Plan.

On May 18, 2011, the Company's board of directors granted options to purchase a total of 3,576,400 shares of the Company's common stock at an exercise price of \$1.40 per share to directors, officers, employees and consultants of the Company, including the following grants to the Company's Named Executive Officers:

- An option to purchase 1,340,400 shares of common stock granted to Harry S. Palmin with 670,200 shares vesting quarterly over a four-year period; 167,550 shares vest upon the closing of one or more financings with total gross proceeds of at least \$10 million before December 31, 2011; 167,550 shares vest upon the closing of one or more financings with total gross proceeds of at least \$20 million before December 31, 2012; 167,550 shares vesting upon the availability of proof of concept data in man for LIGHT by December 31, 2011; and 167,550 shares vesting upon the initiation of a Phase 2a clinical trial for HOT by August 31, 2012.

- An option to purchase 200,000 shares of common stock granted to Christopher J. Pazoles, vesting quarterly over a three-year period.

Entry into Retention Agreements

On May 18, 2011, the Company's board of directors approved the entry into a retention agreement with each of 5 individuals that were employees of Collectar at the time of the Acquisition. The agreements provide for the lump-sum payment of six months' base salary and benefits following a termination without cause or a resignation with good reason occurring on or before November 18, 2011. The agreements expire November 18, 2011.

16. EVENTS (UNAUDITED) SUBSEQUENT TO THE DATE OF THE AUDITOR'S REPORT

Novelos Litigation

On June 23, 2011, the court dismissed the putative federal securities class action complaint, pending in the United States District Court for the District of Massachusetts, without prejudice (see Note 15). Because the dismissal was without prejudice, the plaintiffs could reinstitute the proceeding by filing an amended complaint.

On June 15, 2011 the Company filed its response to BAM's amended counterclaim and filed a motion for judgment on the pleadings (see Note 15).

Actions Taken at Special Meeting of Stockholders

On June 30, 2011, the Company held a special meeting of stockholders. At the meeting, the Company's stockholders approved separate amendments to the Company's certificate of incorporation that would effect a reverse split of the Company's common stock within a range of 1:2 to 1:10, and authorized the Board of Directors to determine the ratio at which the reverse split will be effected by filing the appropriate amendment to the certificate of incorporation. The Company's stockholders also approved an amendment to the Company's 2006 Stock Incentive Plan, previously approved by the Board of Directors, which increased the number of shares of our common stock authorized for issuance thereunder to 7,000,000.

NOVELOS THERAPUETICS, INC. (a Development Stage Company)
UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

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On April 8, 2011, Novelos completed the acquisition of Collectar, Inc. (“Collectar”) pursuant to an Agreement and Plan of Merger (the “Merger Agreement”) between Novelos, Collectar and Cell Acquisition Corp., a wholly owned subsidiary of Novelos (the “Merger Subsidiary”). As a result, Collectar was merged into the Merger Subsidiary (the “Acquisition”) and the Merger Subsidiary, which has been renamed Collectar, Inc., owns all assets and operates the business previously owned and operated by Collectar. References in these unaudited pro forma combined financial statements and notes to “Collectar” relate to the activities and financial information of Collectar 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 of the combined Company following the Acquisition.

The following unaudited pro forma condensed combined financial statements combine the historical financial statements of Novelos and Collectar after giving effect to the Acquisition. The unaudited pro forma condensed combined financial statements are provided for informational purposes only and are subject to a number of uncertainties and assumptions and do not purport to represent what the combined companies’ actual performance or financial position would have been if Novelos and Collectar had been operating as combined entities for the periods presented and does not purport to indicate the financial position or results of operations as of any future date or for any future period. These unaudited condensed combined financial statements should be read in conjunction with the historical financial statements, including the notes thereto, of Novelos included in our Form 10-K for the year ended December 31, 2010, our Form 10-Q for the three-month period ended March 31, 2011 and in the historical financial statements included elsewhere in this prospectus.

The unaudited pro forma condensed combined statement of operations for the three-month period ended March 31, 2011 and the twelve-month period ended December 31, 2010 give effect to the Acquisition as if it had occurred January 1, 2010. The unaudited pro forma condensed combined balance sheet as of March 31, 2011 gives effect to the Acquisition as if it had occurred on that date.

The pro forma adjustments are based on available information, preliminary estimates and certain assumptions that the Company believes are reasonable and are described in the accompanying notes to the unaudited pro forma condensed combined financial statements. The unaudited pro forma condensed combined financial statements assume that the Acquisition will be accounted for using the purchase method of accounting in accordance with *ASC Topic 805 – Business Combinations*. The total purchase price has been preliminarily allocated based on available information and the preliminary estimates and assumptions that management believes are reasonable. The allocation of the purchase price has not been finalized and the actual adjustments may change when the final valuation of certain intangible assets is determined. Accordingly, there can be no assurance that the final allocation of purchase price will not materially differ from the preliminary allocations reflected in the unaudited pro forma condensed combined financial statements.

NOVELOS THERAPEUTICS, INC.
(a Development Stage Company)
UNAUDITED PRO FORMA CONDENSED COMBINED BALANCE SHEET
As of March 31, 2011

| | <u>Historical</u> | | <u>Pro forma Adjustments</u> | <u>Pro forma Combined</u> |
|--|---------------------|---------------------|----------------------------------|-------------------------------|
| | <u>Novelos</u> | <u>Collectar</u> | | |
| ASSETS | | | | |
| CURRENT ASSETS: | | | | |
| Cash and cash equivalents | \$ 1,030,942 | \$ 298,667 | \$ 4,319,158 (a) | \$ 5,648,767 |
| Restricted cash | — | 555,000 | (500,000) (b) | 55,000 |
| Deferred issuance costs | 28,500 | — | (28,500) (c) | — |
| Prepaid expenses and other current assets | 28,042 | 55,625 | — | 83,667 |
| Total current assets | <u>1,087,484</u> | <u>909,292</u> | <u>3,790,658</u> | <u>5,787,434</u> |
| FIXED ASSETS, NET | 6,515 | 3,366,315 | — | 3,372,830 |
| EXCESS OF PURCHASE PRICE OVER NET ASSETS ACQUIRED | — | — | 1,933,349 (d) | 1,933,349 |
| OTHER ASSETS | 15,350 | 12,747 | — | 28,097 |
| TOTAL ASSETS | <u>\$ 1,109,349</u> | <u>\$ 4,288,354</u> | <u>\$ 5,724,007</u> | <u>\$ 11,121,710</u> |
| LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIENCY) | | | | |
| CURRENT LIABILITIES: | | | | |
| Accounts payable and accrued liabilities | \$ 250,008 | \$ 686,264 | \$ — | \$ 936,272 |
| Accrued interest | — | 450,851 | (450,851) (e) | — |
| Derivative liability | 162,760 | — | (106,710) (f) | 56,050 |
| Deferred revenue, current | 33,333 | — | — | 33,333 |
| Notes payable, current portion | — | 625,745 | (625,745) (g) | — |
| Capital lease obligations, current portion | — | 2,121 | — | 2,121 |
| Total current liabilities | <u>446,101</u> | <u>1,764,981</u> | <u>(1,183,306)</u> | <u>1,027,776</u> |
| LONG-TERM LIABILITIES: | | | | |
| Convertible debt | — | 2,720,985 | (2,720,985) (e) | — |
| Notes payable, net of current portion | — | 450,000 | — | 450,000 |
| Deferred revenue, non-current | 358,333 | — | — | 358,333 |
| Deferred rent | — | 119,634 | — | 119,634 |
| Capital lease obligations, net of current portion | — | 5,782 | — | 5,782 |
| Total long-term liabilities | <u>358,333</u> | <u>3,296,401</u> | <u>(2,720,985)</u> | <u>933,749</u> |
| COMMITMENTS AND CONTINGENCIES | | | | |
| STOCKHOLDERS' EQUITY (DEFICIENCY): | | | | |
| Common stock | 30 | 128 | 110 (h) | 268 |
| Additional paid-in capital | 75,291,653 | 24,237,100 | (64,650,607) (i) | 34,878,146 |
| Accumulated deficit | (74,986,768) | — | 74,986,768 (j) | — |
| Deficit accumulated during the development stage | — | (25,010,256) | (707,973) (k) | (25,718,229) |
| Total stockholders' equity (deficiency) | <u>304,915</u> | <u>(773,028)</u> | <u>9,628,298</u> | <u>9,160,185</u> |
| TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIENCY) | <u>\$ 1,109,349</u> | <u>\$ 4,288,354</u> | <u>\$ 5,724,007</u> | <u>\$ 11,121,710</u> |

See accompanying notes to the unaudited pro forma combined financial statements.

NOVELOS THERAPEUTICS, INC.
(a Development Stage Company)
UNAUDITED PRO FORMA CONSOLIDATED STATEMENT OF OPERATIONS
for the Three Months Ended March 31, 2011

| | Historical | | Pro forma Adjustments | Pro forma Combined |
|--|-----------------------|---------------------|--------------------------|-----------------------|
| | Novelos | Collectar | | |
| REVENUE | \$ 8,333 | \$ — | \$ — | \$ 8,333 |
| COSTS AND EXPENSES: | | | | |
| Research and development | 532,686 | 471,404 | — | 1,004,090 |
| General and administrative | 611,877 | 382,160 | (449,347) (l) | 544,690 |
| Total costs and expenses | <u>1,144,563</u> | <u>853,564</u> | <u>(449,347)</u> | <u>1,548,780</u> |
| LOSS FROM OPERATIONS | <u>(1,136,230)</u> | <u>(853,564)</u> | <u>449,347</u> | <u>(1,540,447)</u> |
| OTHER INCOME (EXPENSE): | | | | |
| Grant income | — | 44,479 | — | 44,479 |
| Gain on derivative instruments | 125,490 | — | — | 125,490 |
| Interest income (expense), net | 668 | (156,167) | 157,368 (m) | 1,869 |
| Total other income (expense) | <u>126,158</u> | <u>(111,688)</u> | <u>157,368</u> | <u>171,838</u> |
| NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS | <u>\$ (1,010,072)</u> | <u>\$ (965,252)</u> | <u>\$ 606,715</u> | <u>\$ (1,368,609)</u> |
| BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | <u>\$ (0.34)</u> | <u>\$ (0.08)</u> | | <u>\$ (0.05)</u> |
| SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | <u>2,959,871</u> | <u>12,820,102</u> | | <u>26,808,004</u> |

See accompanying notes to the unaudited pro forma combined financial statements.

NOVELOS THERAPEUTICS, INC.
(a Development Stage Company)
UNAUDITED PRO FORMA CONSOLIDATED STATEMENT OF OPERATIONS
for the Twelve Months Ended December 31, 2010

| | Historical | | Pro forma Adjustments | Pro forma Combined |
|--|-----------------|----------------|--------------------------|-----------------------|
| | Novelos | Collectar | | |
| REVENUE | \$ 33,334 | \$ — | \$ — | \$ 33,334 |
| COSTS AND EXPENSES: | | | | |
| Research and development | 2,997,984 | 2,984,207 | — | 5,982,191 |
| General and administrative | 2,486,032 | 1,209,474 | 372,994 (1) | 4,068,500 |
| Total costs and expenses | 5,484,016 | 4,193,681 | 372,994 | 10,050,691 |
| LOSS FROM OPERATIONS | (5,450,682) | (4,193,681) | (372,994) | (10,017,357) |
| OTHER INCOME (EXPENSE): | | | | |
| Grant income | 244,479 | 200,000 | — | 444,479 |
| Gain on derivative instruments | 8,118,174 | — | — | 8,118,174 |
| Liquidated damages | (819,000) | — | — | (819,000) |
| Interest income (expense), net | 2,421 | (566,156) | (102,766) (n) | (666,501) |
| Other income | — | (426) | — | (426) |
| Total other income (expense) | 7,546,074 | (366,582) | (102,766) | 7,076,726 |
| Net income (loss) | 2,095,392 | (4,560,263) | (475,760) | (2,940,631) |
| Preferred stock dividend | (2,207,827) | — | 2,207,827 (o) | — |
| Preferred stock deemed dividend | (12,541,201) | — | 11,076,201 (o) | (1,465,000) |
| NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS | \$ (12,653,636) | \$ (4,560,263) | \$ 12,808,268 | \$ (4,405,631) |
| BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | \$ (15.36) | \$ (0.36) | | \$ (0.16) |
| SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | 823,932 | 12,820,102 | | 26,808,004 |

See accompanying notes to the unaudited pro forma combined financial statements

NOVELOS THERAPEUTICS, INC.
(a Development Stage Company)
NOTES TO UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

1. BASIS OF PRESENTATION

The unaudited pro forma condensed combined statements of operations for the three-month period ended March 31, 2011 and the twelve-month period ended December 31, 2010 have been prepared based on the historical information of Novelos and Collectar giving effect to the Acquisition as if it had occurred January 1, 2010. The unaudited pro forma combined balance sheet as of March 31, 2011 has been prepared based on the historical information of Novelos and Collectar giving effect to the Acquisition as if it had occurred on that date.

In accordance with the rules and regulations of the Securities and Exchange Commission (the "SEC"), unaudited statements may omit or condense information and disclosures normally required for a complete set of financial statements prepared in accordance with generally accepted accounting principles. Management believes that the notes to the unaudited pro forma financial statements as presented contain disclosures adequate to make the information presented useful and not misleading.

The pro forma adjustments are based on available information, preliminary estimates and certain assumptions that the Company believes are reasonable and are described in the accompanying notes to the unaudited pro forma condensed combined financial statements, which should be read in conjunction with these unaudited pro forma condensed combined financial statements.

As consideration for the Acquisition, the stockholders of Collectar received aggregate consideration consisting of a number of shares of Novelos common stock constituting approximately 85% of the outstanding shares of Novelos common stock, after giving effect to the Acquisition but before giving effect to the concurrent private placement of our securities. Since the former shareholders of Collectar retained the majority voting interest in the combined business, the Acquisition (see Note 2) will be accounted for as a reverse acquisition whereby Collectar will be treated as the acquirer for accounting and financial reporting purposes.

The unaudited pro forma condensed combined financial statements assume that the Acquisition will be accounted for using the purchase method of accounting in accordance with *ASC Topic 805 – Business Combinations*. The total purchase price has been preliminarily allocated based on available information and the preliminary estimates and assumptions that management believes are reasonable. The allocation of the purchase price has not been finalized and the actual adjustments may change when the final valuation of certain intangible assets is determined. Accordingly, there can be no assurance that the final allocation of purchase price will not materially differ from the preliminary allocations reflected in the unaudited pro forma combined financial statements.

2. ACQUISITION

Conversion of Convertible Notes and Payment of Long-Term Debt

On April 8, 2011, immediately prior to the Acquisition, Collectar paid the note payable to a bank in full settlement of the note. The payment was made in order to avoid an event of default that would have occurred as a result of the change of control that occurred at the time of the Acquisition.

On January 31, 2011, the holders of convertible notes agreed to convert the outstanding principal of \$2,720,985 and unpaid interest, immediately prior to the Acquisition, into a fixed total of 4,181,535 shares of common stock of the Company, provided that the note holders invested a minimum amount in the private placement that was completed in connection with the Acquisition. Such conversion occurred on April 8, 2011. The revised conversion terms resulted in the issuance of an additional 343,963 shares of common stock than would have been issued if the notes had been converted in accordance with their original terms.

Merger Agreement

On April 8, 2011, Novelos completed the acquisition of Collectar, Inc. ("Collectar") pursuant to an Agreement and Plan of Merger (the "Merger Agreement") between Novelos, Collectar and Cell Acquisition Corp., a wholly owned subsidiary of Novelos (the "Merger Subsidiary"). As a result, Collectar was merged into the Merger Subsidiary (the "Acquisition") and the Merger Subsidiary, which has been renamed Collectar, Inc., owns all assets and operates the business previously owned and operated by Collectar.

As consideration for the Acquisition, the stockholders of Collectar received aggregate consideration consisting of a number of shares of Novelos common stock constituting, after giving effect to the Acquisition but before giving effect to the concurrent private placement of Novelos securities described below, approximately 85% of the outstanding shares of Novelos common stock. Prior to the Acquisition, Novelos amended and restated its certificate of incorporation and in connection therewith, among other things, effected a 1-for-153 reverse split of its common stock (the "Reverse Split"), which has been retroactively reflected in the accompanying pro forma financial statements. Immediately prior to the Acquisition, there were approximately 2,959,871 shares of Novelos common stock outstanding. Novelos then issued 17,001,596 shares of Novelos common stock to the former stockholders of Collectar upon the effective date of the Acquisition. Warrants and options to purchase Novelos common stock that were outstanding prior to the Acquisition remained outstanding following the Acquisition. These consist of warrants to purchase a total of 315,164 shares of Novelos common stock with prices ranging from \$16.07 to \$191.25 and options to purchase a total of 49,159 shares of Novelos common stock with prices ranging from \$1.53 to \$1,072.53.

XMS Capital Partners, the financial advisor to Collectar in connection with the Acquisition, received a cash fee of \$200,000 upon the completion of the Acquisition in consideration of their services. Rodman & Renshaw, LLC ("Rodman"), financial advisor to Novelos in connection with the Acquisition, received a cash fee of \$250,000 upon the completion of the Acquisition in consideration of their services. These amounts will be recorded to general and administrative expense as of the date of the Acquisition.

Securities Purchase Agreement

Concurrently with the execution of the Merger Agreement, Novelos entered into a Securities Purchase Agreement with certain accredited investors under which it sold an aggregate of 6,846,537 units, each unit consisting of one share of its common stock and a warrant to purchase one share of its common stock, at a price of \$0.75 per unit, for gross proceeds of approximately \$5,135,000. The warrants have an exercise price of \$0.75 and expire on March 31, 2016. The warrant exercise price and/or the common stock issuable pursuant to such warrant will be subject to adjustment for stock dividends, stock splits or similar capital reorganizations so that the rights of the warrant holders after such event will be equivalent to the rights of warrant holders prior to such event.

Rodman, the placement agent for the financing, was paid a cash fee equal to \$200,000 and issued warrants to purchase 192,931 shares of the Company's common stock (having an exercise price of \$0.75 and which expire March 31, 2016) in consideration for their advisory services with respect to the financing pursuant to the placement agency agreement between Rodman and Novelos. Rodman is entitled to registration rights with respect to the shares of common stock issuable upon exercise of these warrants. These amounts will be recorded as a reduction of gross proceeds received.

Purchase Accounting

The Acquisition will be accounted for using the purchase method of accounting as a reverse acquisition. In a reverse acquisition, the post-acquisition net assets of the surviving combined company includes the historical cost basis of the net assets of the accounting acquirer, Collectar, plus the fair value of the net assets of the accounting acquiree, Novelos. Further, under the purchase method, the purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair values and the excess of the purchase price over the estimated fair value of the identifiable net assets is presented as excess purchase price over net assets acquired. The cost of acquisition and related purchase price allocation is based on preliminary evaluation of the fair value of assets and liabilities assumed of Novelos and may change when the final valuation of certain intangible assets is determined.

The purchase price as of the acquisition date was \$2,219,903 and was determined based on the fair value of the shares of common stock retained by Novelos shareholders at the date of Acquisition.

The following table summarizes the Company's preliminary estimated fair values of the assets acquired and the liabilities assumed at the date of acquisition.

| | |
|--|----------------------------|
| Consideration - issuance of securities | \$ 2,219,903 |
| Prepaid expenses and other assets | \$ 71,892 |
| Fixed assets | 6,515 |
| Accrued liabilities | (250,008) |
| Deferred revenue | (391,666) |
| Derivative liability | (56,050) |
| Excess of purchase price over net assets acquired | <u>1,933,349</u> |
| Total purchase price – net of cash acquired of \$905,871 | <u><u>\$ 1,314,032</u></u> |

The excess of purchase price over net assets acquired will be allocated to intangibles and goodwill once the Company completes the final allocation of purchase price. Since the Company does not anticipate recording intangibles which have definite lives, the pro forma statements of operations do not include any amortization of intangibles as the purchase price allocation has not been finalized (see Note 1).

3. PRO FORMA ADJUSTMENTS

Balance sheet adjustments

- (a) Represents the net impact on cash for the following items:

| | |
|--|----------------------------|
| Net cash proceeds from the issuance of common stock and warrants issued in the private placement completed in connection with the Acquisition, net of fees | \$ 4,894,903 |
| Adjustment to reflect the payment of merger costs upon the consummation of the Acquisition. | (450,000) |
| Reclassification of restricted cash in connection with the release of a restriction on cash as described in (b) | 500,000 |
| Adjustment to reflect the payoff of a bank note in connection with the Acquisition as described in (g) | (625,745) |
| Total adjustment to cash and cash equivalents | <u>\$ 4,319,158</u> |

- (b) Adjustment to reflect the release of a restriction on cash required as collateral on the bank note. The bank note was paid in full (as described in (g) below) in connection with the Acquisition.
- (c) Adjustment to reflect the offset of deferred issuance costs against the proceeds received in connection with the private placement of common stock and warrants that was completed in connection with the Acquisition.
- (d) Adjustment to record the preliminary estimate of the excess of purchase price over net assets acquired in connection with the Acquisition (see Note 2).
- (e) Adjustment to reflect the conversion of convertible debt and accumulated interest into common stock, which conversion was completed immediately prior to the Acquisition and was in contemplation of the Acquisition.
- (f) Adjustment to reduce the fair value of warrants recorded as derivative instruments to the estimated fair value at the date of Acquisition as part of preliminary purchase price allocation.
- (g) To reflect the payment of the bank note in order to avoid an event of default that would have occurred as a result of the change of control that occurred at the time of the Acquisition. Upon payment of the bank note, the associated restriction on the related cash-collateral deposit account was released (see (b) above).
- (h) In a reverse acquisition, the capital stock account of the combined entity reflects the par value of the legal acquirer's stock (Novelos). As such, the common stock is stated at Novelos' par value (\$0.00001) post-Acquisition. Adjustment represents the net impact of the following items:

| | |
|---|----------------------|
| Issuance of common stock in connection with the conversion of debt immediately prior to the Acquisition | \$ 42 |
| Issuance of common stock and warrants in the private placement completed in connection with the Acquisition | 68 |
| Total adjustment to common stock | <u>\$ 110</u> |

- (i) Represents the net impact of the following items:

| | |
|---|------------------------|
| Additional paid-in capital from the issuance of common stock and warrants issued in the private placement completed in connection with the Acquisition, net of par value recorded to common stock | \$ 4,894,835 |
| Adjustment to reduce additional paid-in capital for deferred issuance costs associated with the private placement | (28,500) |
| Conversion of principal balance of convertible notes and associated accrued interest immediately prior to the Acquisition, net of par value recorded to common stock | 3,171,794 |
| Adjustment to record impact on additional paid-in capital resulting from beneficial shares that were issued on the date of Acquisition related to the convertible notes (see (k) below) | 257,973 |
| Adjustment to reflect the reduction in the fair value of warrants recorded as a derivative instrument to the estimated fair value at the date of Acquisition as part of the preliminary purchase price allocation (see (f) above) | 106,710 |
| Adjustment to reflect the preliminary estimate of excess purchase price over net assets acquired in connection with the acquisition (see (d) above) | 1,933,349 |
| Adjustment to eliminate Novelos' accumulated deficit as described in (j) below | <u>(74,986,768)</u> |
| Total adjustment to additional paid-in capital | <u>\$ (64,650,607)</u> |

- (j) In a reverse acquisition, the accumulated deficit of the accounting acquiree (Novelos) is eliminated with an offset to additional paid-in capital. Represents the elimination of the historical accumulated deficit of Novelos with a corresponding offset to additional paid-in capital.
- (k) Represents the adjustment to reflect the impact of an increase to interest expense at March 31, 2011 related to the fair value of the beneficial conversion feature, at that date, resulting from the conversion of the outstanding principal and interest of convertible notes in connection with the Acquisition, which is assumed to have occurred on March 31, 2011 for the purpose of presentation in the pro forma balance sheet and to reflect the merger costs as a result of the consummation of the Acquisition.

Statement of operations adjustments

- (l) Represents the adjustment to reflect for transaction-related costs in connection with the Acquisition as follows:

| | For the Three Months Ended March 31, 2011 | For the Twelve Months Ended December 31, 2010 |
|--|--|--|
| Adjustment to eliminate transaction related costs that were incurred prior to the consummation of the Acquisition. | \$ (449,347) | \$ (77,006) |
| Adjustment to reflect the merger costs as a result of the consummation of the Acquisition (as described in Note 2) | — | 450,000 |
| Total adjustment to general and administrative expense | <u>\$ (449,347)</u> | <u>\$ 372,994</u> |

- (m) Represents the adjustment to eliminate interest expense associated with the convertible notes and the bank note for the three-month period ended March 31, 2011.
- (n) Represents the adjustment to eliminate the interest expense for the year ended December 31, 2010 associated with the convertible notes and the bank note, net of an adjustment to reflect the additional interest expense associated with beneficial shares that were issued on the assumed date of conversion (1/1/2010) in connection with the Acquisition associated with the outstanding principal balance of \$2,720,985 on convertible notes. For the purpose of pro forma presentation, the fair value of the beneficial shares was calculated assuming the notes were converted on the date of issuance; at which time no interest would have accrued or converted resulting in a higher fair value for the pro forma presentation in the statement of operations.

| | |
|--|---------------------|
| Adjustment to eliminate interest expense associated with the convertible notes | \$ 305,049 |
| Adjustment to eliminate interest expense associated with the bank note | 55,454 |
| Adjustment to reflect the impact of the beneficial shares that were issued on the date of the conversion of the convertible notes in connection with the acquisition | (463,269) |
| Total adjustment to interest income (expense), net | <u>\$ (102,766)</u> |

- (o) Represents the elimination of the accruing dividends and an adjustment to deemed dividends on Novelos' convertible preferred stock, which is assumed to have been exchanged for common stock on January 1, 2010 for the purpose of presentation in the pro forma statements of operations. For pro forma presentation, the deemed dividend recorded when the preferred stock was exchanged in November 2010 was recalculated based on fair value assumptions on January 1, 2010, giving effect to the Acquisition.



Novelos Therapeutics, Inc.

shares of common stock

PROSPECTUS

Rodman & Renshaw, LLC

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table provides information regarding the various actual and anticipated expenses (other than placement agent fees) payable by us in connection with the issuance and distribution of the securities being registered hereby. All amounts shown are estimates except the Securities and Exchange Commission registration fee.

| Nature of Expense | Amount |
|------------------------------------|-------------------|
| SEC registration fee | \$ 2,003 |
| Accounting fees and expenses | 20,000 |
| Legal fees and expenses | 100,000 |
| Transfer agent's fees and expenses | 3,000 |
| Printing and related fees | 15,000 |
| Miscellaneous | 10,000 |
| Total | \$ 150,003 |

Item 14. Indemnification of Directors and Officers.

Section 102(b)(7) of the Delaware General Corporation Law allows us to adopt a charter provision eliminating or limiting the personal liability of directors to us or our stockholders for breach of fiduciary duty as directors, but the provision may not eliminate or limit the liability of directors for (a) any breach of the director's duty of loyalty to us or our stockholders, (b) any acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) unlawful payments of dividends or unlawful stock repurchases or redemptions under Section 174 of the Delaware General Corporation Law or (d) any transaction from which the director derived an improper personal benefit. Article Seventh of our charter provides that none of our directors shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, subject to the limitations imposed by Section 102(b)(7). Article Seventh also provides that no amendment to or repeal of Article Seventh shall apply to or have any effect on the liability or the alleged liability of any director with respect to any acts or omissions of such director occurring prior to such amendment or repeal. A principal effect of Article Seventh is to eliminate or limit the potential liability of our directors for monetary damages arising from breaches of their duty of care, unless the breach involves one of the four exceptions described in (a) through (d) above.

Section 145 of the Delaware General Corporation Law provides, in general, that a corporation incorporated under the laws of the State of Delaware, such as us, may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than a derivative action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. In the case of a derivative action, a Delaware corporation may indemnify any such person against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification will be made in respect of any claim, issue or matter as to which such person will have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery of the State of Delaware or any other court in which such action was brought determines such person is fairly and reasonably entitled to indemnity for such expenses.

Article Eighth of our amended and restated certificate of incorporation and Section 5.1 of our bylaws provide that we will indemnify our directors, officers, employees and agents to the extent and in the manner permitted by the provisions of the Delaware General Corporation Law, as amended from time to time, subject to any permissible expansion or limitation of such indemnification, as may be set forth in any shareholders' or directors' resolution or by contract.

The effect of these provisions would be to permit indemnification by us for, among other liabilities, liabilities arising out of the Securities Act of 1933.

Item 15. Recent Sales of Unregistered Securities

In the last three years we have sold the following securities in reliance on, unless otherwise indicated, the exemption under Section 4(2) of the Securities Act of 1933, as amended, as transactions not involving any public offering. All share and per share amounts have been adjusted to give effect to the 1-for-153 reverse stock split that occurred immediately prior to the Acquisition.

2011

From April 1, 2011 through June 30, 2011:

On April 8, 2011, we issued an aggregate of 17,001,596 shares of our common stock as merger consideration to the former shareholders of Collectar.

Concurrently with the Acquisition, on April 8, 2011, we entered into a Securities Purchase Agreement with certain accredited investors under which we sold an aggregate of 6,846,537 units, each unit consisting of one share of our common stock and a warrant to purchase one share of our common stock, at a price of \$0.75 per unit for gross proceeds of \$5,134,903. The warrants have an exercise price of \$0.75 and expire on March 31, 2016. We also issued a warrant to purchase 192,931 shares of our common stock for \$0.75, expiring March 31, 2016, to the placement agent in the financing.

On May 3, 2011, we issued 18,153 shares of our common stock in connection with the cashless exercise of warrants to purchase 27,311 shares of common stock at \$0.75 per share.

From January 1, 2011 through March 31, 2011:

None

2010

From October 1, 2010 through December 31, 2010:

On November 30, 2010, we issued 2,228,338 shares of common stock in exchange for all outstanding shares of Series E preferred stock and all outstanding shares of Series C preferred stock. The issuance was made pursuant to an exchange agreement between the Company and all holders of its preferred stock.

From July 1, 2010 through September 30, 2010:

On July 27, 2010, we issued five-year warrants (the "Incentive Warrants") to our preferred stockholders for the purchase of up to an aggregate of 105,042 shares of common stock at an exercise price of \$16.07 per share pursuant to a consent and waiver dated July 6, 2010, as amended on July 21, 2010. The Incentive Warrants were issued in connection with an offering registered under the Securities Act of 1933, as amended, of an aggregate of 140,056 shares of its common stock and five-year warrants to purchase up to an aggregate of 105,042 shares of its common stock, for gross proceeds of \$1,500,000.

From April 1, 2010 through June 30, 2010:

None.

From January 1, 2010 through March 31, 2010:

We issued 76,769 shares of our common stock upon conversion of approximately 140 shares of our Series E preferred stock, having an aggregate stated value of approximately \$7,000,000, and accumulated undeclared dividends thereon.

- We issued 47,000 shares of our common stock upon the cashless exercise of warrants to purchase 77,551 shares of common stock. The warrants had an expiration date of December 31, 2015 and an exercise price of \$99.45 per share.
- We issued 1,480 shares of our common stock upon the cashless exercise of warrants to purchase 2,075 shares of common stock. The warrants had an expiration date of August 9, 2010 and an exercise price of \$99.45 per share.
- We issued 229 shares of our common stock upon the cashless exercise of warrants to purchase 490 shares of common stock. The warrants had an expiration date of May 2, 2012 and an exercise price of \$191.25 per share.
- We issued 2,395 shares of our common stock upon the cashless exercise of warrants to purchase 6,480 shares of common stock. The warrants had an expiration date of March 7, 2011 and an exercise price of \$263.16 per share.
- We issued 313 shares of our common stock upon the cashless exercise of warrants to purchase 544 shares of common stock. The warrants had an expiration date of May 2, 2012 and an exercise price of \$191.25 per share.
- We issued 2,058 shares of our common stock upon the cashless exercise of warrants to purchase 2,614 shares of common stock. The warrants had an expiration date of April 1, 2010 and an exercise price of \$95.62 per share.

2009

From October 1, 2009 through December 31, 2009:

- We issued 31,384 shares of our common stock upon conversion of approximately 58 shares of our Series E preferred stock, having an aggregate stated value of approximately \$2,907,000, and accumulated undeclared dividends thereon.
- We issued 4,330 shares of our common stock upon conversion of 28 shares of our Series C preferred stock having an aggregate stated value of \$336,000, and accumulated undeclared dividends thereon.
- We issued 172 shares of our common stock upon the cashless exercise of warrants to purchase an aggregate of 1,316 shares of common stock. The warrants had an expiration date of March 7, 2011 and an exercise price of \$263.16 per share.
- We issued 793 shares of our common stock upon the cashless exercise of warrants to purchase an aggregate of 1,320 shares of common stock. The warrants had an expiration date of August 9, 2010 and an exercise price of \$0.65 per share.
- We issued 218,648 shares of our common stock upon the cashless exercise of warrants to purchase an aggregate of 320,000 shares of common stock. The warrants had an expiration date of April 1, 2010 and an exercise price of \$99.45 per share.
- We issued 249 shares of our common stock upon the cashless exercise of warrants to purchase an aggregate of 396 shares of common stock. The warrants had an expiration date of October 3, 2010 and an exercise price of \$99.45 per share.
- We sold 54,466 shares of our common stock and warrants to purchase 19,063 shares of common stock at an exercise price of \$100.98 per share for gross proceeds of approximately \$5,500,000.

From July 1, 2009 through September 30, 2009:

- We sold 34,660 shares of our common stock and warrants to purchase 12,131 shares of common stock at an exercise price of \$100.98 per share for gross proceeds of approximately \$3,500,000.
- We issued 13,622 shares of our common stock in exchange for outstanding warrants to purchase 45,409 shares of common stock at an exercise price of \$278.46 per share. These warrants had been issued in a March 2006 financing. The issuance was made pursuant to an exchange agreement with each warrant holder and was exempt from registration under Section 3(a)(9) of the Securities Act.

- We issued 747 shares of our common stock upon conversion of approximately 39 shares of our Series E preferred stock, having an aggregate stated value of approximately \$1,952,000, and accumulated undeclared dividends thereon.
- We issued 747 shares of our common stock upon conversion of 5 shares of our Series C preferred stock, having an aggregate stated value of \$60,000, and accumulated dividends thereon.
- We issued 476 shares of our common stock upon the cashless exercise of warrants to purchase an aggregate of 1,715 shares of common stock. The warrants had an expiration date of August 9, 2010 and an exercise price of \$99.45 per share.

From April 1, 2009 through June 30, 2009:

- We issued 39 shares of our common stock upon the cashless exercise of warrants to purchase an aggregate of 136 shares of common stock. The warrants had an expiration date of August 9, 2010 and an exercise price of \$99.45 per share.
- We issued 4,979 shares of our common stock upon conversion of 35 shares of our Series C preferred stock, having an aggregate stated value of \$420,000, and accumulated dividends thereon.

From January 1, 2009 through March 31, 2009:

- We sold 200 shares of our Series E preferred stock and warrants to purchase 60,331 shares of our common stock at an exercise price of \$99.45 per share for gross proceeds of approximately \$10,000,000 and paying approximately \$800,000 in fees and expenses. In addition, 413.5 shares of our Series D preferred stock and accumulated undeclared dividends thereon were exchanged for 445.442875 shares of our Series E preferred stock.

2008

From July 1, 2008 through September 30, 2008:

In August 2008, we sold 30,165 shares of our common stock to two related accredited investors at \$99.45 per share, for gross proceeds of approximately \$3,000,000.

Item 16. Exhibits and Financial Statement Schedules

| Exhibit No. | Description | Filed with this Form S-1 | Incorporated by Reference | | |
|-------------|--|--------------------------|---------------------------|-------------------|-------------|
| | | | Form | Filing Date | Exhibit No. |
| 1.1 | Form of Underwriting Agreement* | | | | |
| 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 |
| 3.2 | Amended and Restated By-laws | | 8-K | June 1, 2011 | 3.1 |
| 3.3 | Form of Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of Novelos Therapeutics, Inc. | X | | | |
| 5.1 | Legal Opinion of Foley Hoag LLP* | | | | |
| 4.1 | Form of Underwriter's Warrant* | | | | |
| 10.1 | Employment Agreement with Harry S. Palmin dated January 31, 2006 | | 8-K | February 6, 2006 | 99.1 |
| 10.2 | 2000 Stock Option and Incentive Plan* | | SB-2 | November 16, 2005 | 10.2 |
| 10.3 | Form of 2004 non-plan non-qualified stock option | | SB-2 | November 16, 2005 | 10.3 |
| 10.4 | Form of non-plan non-qualified stock option used from February to May 2005 | | SB-2 | November 16, 2005 | 10.4 |
| 10.5 | Form of non-plan non-qualified stock option used after May 2005 | | SB-2 | November 16, 2005 | 10.5 |
| 10.6 | Consideration and new technology agreement dated April 1, 2005 with ZAO BAM | | 10-QSB | August 15, 2005 | 10.2 |
| 10.7 | Form of common stock purchase warrant dated March 2006 | | 8-K | March 3, 2006 | 99.3 |
| 10.8 | 2006 Stock Incentive Plan, as amended | | 8-K | May 23, 2011 | 10.1 |
| 10.9 | Form of Incentive Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.1 |
| 10.10 | Form of Non-Statutory Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.2 |
| 10.11 | Form of Non-Statutory Director Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.3 |

| | | | | |
|-------|--|--------|--------------------|-------|
| 10.12 | Form of Common Stock Purchase Warrant dated May 2, 2007 issued pursuant to the Agreement to Exchange and Consent dated May 2, 2007 | 10-QSB | May 8, 2007 | 4.2 |
| 10.13 | Collaboration Agreement dated February 11, 2009** | 10-K | March 30, 2009 | 10.39 |
| 10.14 | Common Stock Purchase Warrant dated February 11, 2009 | 8-K | February 18, 2009 | 4.2 |
| 10.15 | Form of Warrant Exchange Agreement dated August 21, 2009 | 8-K | August 26, 2009 | 10.5 |
| 10.16 | Securities Purchase Agreement dated August 25, 2009 | S-1 | September 15, 2009 | 10.41 |
| 10.17 | Common Stock Purchase Warrant dated August 25, 2009 | S-1 | September 15, 2009 | 10.43 |
| 10.18 | Letter Agreement with LP Clover Limited dated August 25, 2009 | S-1 | September 15, 2009 | 10.44 |
| 10.19 | Letter Agreement with Mundipharma International Corporation Limited dated August 25, 2009 | S-1 | September 15, 2009 | 10.45 |
| 10.20 | Consent and Amendment Agreement dated January 21, 2010 | S-1/A | January 26, 2010 | 10.47 |
| 10.21 | Form of Executive Retention Agreement dated May 14, 2010** | 10-Q | May 17, 2010 | 10.3 |
| 10.22 | Form of Placement Agent Agreement Between the Company and Rodman and Renshaw LLC | S-1A | June 25, 2010 | 10.50 |
| 10.23 | Written Consent and Waiver of Holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock dated July 6, 2010 | S-1A | July 7, 2010 | 10.52 |
| 10.24 | Form of Common Stock Purchase Warrant to be issued pursuant to the Consent and Waiver of Holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock dated July 6, 2010 | S-1A | July 7, 2010 | 10.53 |
| 10.25 | Form of Securities Purchase Agreement dated July 21, 2010 | 8-K | July 22, 2010 | 10.1 |
| 10.26 | Amendment to Consent and Waiver of Holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock dated July 21, 2010 | 8-K | July 22, 2010 | 10.2 |
| 10.27 | Exchange Agreement dated November 30, 2010 between the Company and the holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock | 8-K | November 30, 2010 | 10.1 |

| | | | | | |
|-------|---|---|-----|----------------|------|
| 10.28 | Form of Common Stock Purchase Warrant dated April 8, 2011 | | 8-K | April 11, 2011 | 4.3 |
| 10.29 | Securities Purchase Agreement dated April 8, 2011 | | 8-K | April 11, 2011 | 10.1 |
| 10.30 | Placement Agency Agreement dated April 1, 2011 | | 8-K | April 11, 2011 | 99.1 |
| 10.31 | License Agreement between Collectar, LLC and the Regents of the University of Michigan dated September 14, 2003, as amended through June 2010 | X | | | |
| 10.32 | Lease Agreement between Collectar, LLC and McAllen Properties LLC, as amended and extended to date | X | | | |
| 10.33 | Loan Agreement between the Wisconsin Department of Commerce and Collectar, Inc. dated September 15, 2010 | X | | | |
| 10.34 | General Business Security Agreement dated September 15, 2010 | X | | | |
| 23.1 | Consent of Foley Hoag LLP (included in Exhibit 5.1) | | | | |
| 23.2 | Consent of Grant Thornton LLP | X | | | |
| 24.1 | Powers of Attorney (included on signature page) | X | | | |

* To be filed by amendment

** Portions of this exhibit have been omitted pursuant to a confidential treatment order.

Item 17. Undertakings.

(a) The undersigned registrant hereby undertakes to:

(1) File, during any period in which it offers or sells securities, a post-effective amendment to this Registration Statement to:

(i) Include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) Reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement.

(iii) Include any additional or changed material information on the plan of distribution.

(2) For determining liability under the Securities Act, treat each post-effective amendment as a new registration statement of the securities offered, and the offering of the securities at that time to be the initial bona fide offering.

(3) File a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.

(b) Insofar as indemnification for liabilities arising under the Securities Act of 1933 (the “Act”) may be permitted to directors, officers and controlling persons of the registrant pursuant to foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable.

(c) Each prospectus filed pursuant to Rule 424(b)(Sec.230.424(b) of this chapter) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A (Sec.230.430A of this chapter), shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(d) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) or under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(e) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Newton, Commonwealth of Massachusetts, on June 30, 2011.

NOVELOS THERAPEUTICS, INC.

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

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Novelos Therapeutics, Inc., hereby severally constitute and appoint Harry S. Palmin and Joanne M. Protano, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign for us and in our names in the capacities indicated below any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|---|--|---------------|
| <u>/s/ Harry S. Palmin</u> Harry S. Palmin | Chief Executive Officer and Director (<i>principal executive officer</i>) | June 30, 2011 |
| <u>/s/ Joanne M. Protano</u> Joanne M. Protano | Chief Financial Officer (<i>principal financial officer and principal accounting officer</i>) | June 30, 2011 |
| <u>/s/ Stephen A. Hill</u> Stephen A. Hill | Chairman of the Board of Directors | June 30, 2011 |
| <u>/s/ T. Rockwell Mackie</u> T. Rockwell Mackie | Director | June 30, 2011 |
| <u>/s/ James S. Manuso</u> James S. Manuso | Director | June 30, 2011 |
| <u>/s/ John Neis</u> John Neis | Director | June 30, 2011 |
| <u>/s/ John E. Niederhuber</u> John E. Niederhuber | Director | June 30, 2011 |
| <u>/s/ Howard M. Schneider</u> Howard M. Schneider | Director | June 30, 2011 |
| <u>/s/ Michael F. Tweedle</u> Michael F. Tweedle | Director | June 30, 2011 |
| <u>/s/ Jamey P. Weichert</u> Jamey P. Weichert | Director | June 30, 2011 |

EXHIBIT INDEX

| Exhibit No. | Description | Filed with this Form S-1 | Incorporated by Reference | | |
|-------------|--|--------------------------|---------------------------|-------------------|-------------|
| | | | Form | Filing Date | Exhibit No. |
| 1.1 | Form of Underwriting Agreement* | | | | |
| 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 |
| 3.2 | Amended and Restated By-laws | | 8-K | June 1, 2011 | 3.1 |
| 3.3 | Form of Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of Novelos Therapeutics, Inc. | X | | | |
| 5.1 | Legal Opinion of Foley Hoag LLP* | | | | |
| 4.1 | Form of Underwriter's Warrant* | | | | |
| 10.1 | Employment Agreement with Harry S. Palmin dated January 31, 2006 | | 8-K | February 6, 2006 | 99.1 |
| 10.2 | 2000 Stock Option and Incentive Plan* | | SB-2 | November 16, 2005 | 10.2 |
| 10.3 | Form of 2004 non-plan non-qualified stock option | | SB-2 | November 16, 2005 | 10.3 |
| 10.4 | Form of non-plan non-qualified stock option used from February to May 2005 | | SB-2 | November 16, 2005 | 10.4 |
| 10.5 | Form of non-plan non-qualified stock option used after May 2005 | | SB-2 | November 16, 2005 | 10.5 |
| 10.6 | Consideration and new technology agreement dated April 1, 2005 with ZAO BAM | | 10-QSB | August 15, 2005 | 10.2 |
| 10.7 | Form of common stock purchase warrant dated March 2006 | | 8-K | March 3, 2006 | 99.3 |
| 10.8 | 2006 Stock Incentive Plan, as amended | | 8-K | May 23, 2011 | 10.1 |
| 10.9 | Form of Incentive Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.1 |
| 10.10 | Form of Non-Statutory Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.2 |
| 10.11 | Form of Non-Statutory Director Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.3 |

| | | | | |
|-------|--|--------|--------------------|-------|
| 10.12 | Form of Common Stock Purchase Warrant dated May 2, 2007 issued pursuant to the Agreement to Exchange and Consent dated May 2, 2007 | 10-QSB | May 8, 2007 | 4.2 |
| 10.13 | Collaboration Agreement dated February 11, 2009** | 10-K | March 30, 2009 | 10.39 |
| 10.14 | Common Stock Purchase Warrant dated February 11, 2009 | 8-K | February 18, 2009 | 4.2 |
| 10.15 | Form of Warrant Exchange Agreement dated August 21, 2009 | 8-K | August 26, 2009 | 10.5 |
| 10.16 | Securities Purchase Agreement dated August 25, 2009 | S-1 | September 15, 2009 | 10.41 |
| 10.17 | Common Stock Purchase Warrant dated August 25, 2009 | S-1 | September 15, 2009 | 10.43 |
| 10.18 | Letter Agreement with LP Clover Limited dated August 25, 2009 | S-1 | September 15, 2009 | 10.44 |
| 10.19 | Letter Agreement with Mundipharma International Corporation Limited dated August 25, 2009 | S-1 | September 15, 2009 | 10.45 |
| 10.20 | Consent and Amendment Agreement dated January 21, 2010 | S-1/A | January 26, 2010 | 10.47 |
| 10.21 | Form of Executive Retention Agreement dated May 14, 2010** | 10-Q | May 17, 2010 | 10.3 |
| 10.22 | Form of Placement Agent Agreement Between the Company and Rodman and Renshaw LLC | S-1A | June 25, 2010 | 10.50 |
| 10.23 | Written Consent and Waiver of Holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock dated July 6, 2010 | S-1A | July 7, 2010 | 10.52 |
| 10.24 | Form of Common Stock Purchase Warrant to be issued pursuant to the Consent and Waiver of Holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock dated July 6, 2010 | S-1A | July 7, 2010 | 10.53 |
| 10.25 | Form of Securities Purchase Agreement dated July 21, 2010 | 8-K | July 22, 2010 | 10.1 |
| 10.26 | Amendment to Consent and Waiver of Holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock dated July 21, 2010 | 8-K | July 22, 2010 | 10.2 |
| 10.27 | Exchange Agreement dated November 30, 2010 between the Company and the holders of Series C Convertible Preferred Stock and Series E Convertible Preferred Stock | 8-K | November 30, 2010 | 10.1 |

| | | | | | |
|-------|---|---|-----|----------------|------|
| 10.28 | Form of Common Stock Purchase Warrant dated April 8, 2011 | | 8-K | April 11, 2011 | 4.3 |
| 10.29 | Securities Purchase Agreement dated April 8, 2011 | | 8-K | April 11, 2011 | 10.1 |
| 10.30 | Placement Agency Agreement dated April 1, 2011 | | 8-K | April 11, 2011 | 99.1 |
| 10.31 | License Agreement between Collectar, LLC and the Regents of the University of Michigan dated September 14, 2003, as amended through June 2010 | X | | | |
| 10.32 | Lease Agreement between Collectar, LLC and McAllen Properties LLC, as amended and extended to date | X | | | |
| 10.33 | Loan Agreement between the Wisconsin Department of Commerce and Collectar, Inc. dated September 15, 2010 | X | | | |
| 10.34 | General Business Security Agreement dated September 15, 2010 | X | | | |
| 23.1 | Consent of Foley Hoag LLP (included in Exhibit 5.1) | | | | |
| 23.2 | Consent of Grant Thornton LLP | X | | | |
| 24.1 | Powers of Attorney (included on signature page) | X | | | |

* To be filed by amendment

** Portions of this exhibit have been omitted pursuant to a confidential treatment order.

**CERTIFICATE OF AMENDMENT
TO
THE SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
NOVELOS THERAPEUTICS, INC.**

NOVELOS THERAPEUTICS, INC. (the “Corporation”), a corporation organized and existing under of the General Corporation Law of the State of Delaware, does hereby certify:

FIRST: The name of the Corporation is Novelos Therapeutics, Inc.

SECOND: The Second Amended and Restated Certificate of Incorporation of the Corporation is hereby amended by inserting the following paragraphs in Article FOURTH thereof immediately following the first paragraph of said Article FOURTH:

“Upon the effectiveness of the amendment to the Second Amended and Restated Certificate of Incorporation adding this paragraph thereto (the “Effective Time”), each share of Common Stock, par value \$.00001 per share issued and outstanding immediately prior to the Effective Time (the “Original Common Stock”), shall be reclassified into [1/2][1/3][1/4][1/5][1/6][1/7][1/8][1/9][1/10] shares of Common Stock, such Common Stock to have the rights and powers set forth in the Certificate of Incorporation and under the General Corporation Law of the State of Delaware (the “Reclassification”). All shares of Common Stock issued to any holder of Original Common Stock as a result of the Reclassification shall be aggregated for the purpose of determining the number of shares of Common Stock to which such holder shall be entitled, and no fractional shares shall be issued in connection with the Reclassification.

Any stockholder who would otherwise be entitled to receive a fractional share of Common Stock as a result of the Reclassification shall receive in lieu thereof cash in an amount equal to such fraction multiplied by the fair market value of one share of Common Stock, based on the average of the high and low bid prices of the Common Stock as quoted on the Over-the-Counter Bulletin Board on the last trading day immediately preceding the Effective Time. No cash in lieu of any fractional share shall be paid to any stockholder until such stockholder shall have surrendered for transfer or otherwise accounted to the Corporation for the outstanding stock certificates entitling such stockholder to such cash.

At and after the Effective Time, outstanding certificates that prior thereto represented shares of Original Common Stock shall be deemed for all purposes to evidence ownership of and to represent that number of shares of Common Stock into which the shares previously represented by such certificates have been reclassified as herein provided (and the right to receive cash in lieu of any fraction of a share as provided herein). Until any such outstanding stock certificates have been surrendered for transfer or otherwise accounted for to the Corporation, the registered owner thereof on the books and records of the Corporation shall have and be entitled to exercise any voting and other rights with respect to, and receive any dividend and other distributions upon, the shares of Common Stock issued in respect of the Original Common Stock formerly evidenced by such certificates.”

THIRD: The foregoing amendment was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

FOURTH: The foregoing amendment shall be effective upon filing with the Secretary of State of the State of Delaware.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation to be signed by Harry S. Palmin, its Chief Executive Officer and President, thereto duly authorized, this ____ day of _____, 2011.

NOVELOS THERAPEUTICS, INC.

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

LICENSE AGREEMENT
MICHIGAN FILE 290 and 1225

This Agreement is effective as of the 4th day of September, 2003 (the "Effective Date"), between Collectar, LLC, a Wisconsin limited liability company, with offices located at 505 South Rosa Road, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"). LICENSEE and MICHIGAN agree as follows:

ARTICLE 1 – DEFINITIONS

1.1 "FIELD OF USE" means all fields.

1.2 "FIRST COMMERCIAL SALE" means the first sale of any LICENSED PRODUCT or first commercial use of any LICENSED PROCESS by LICENSEE or a SUBLICENSEE, other than sale of a LICENSED PRODUCT or use of a LICENSED PROCESS for use in trials, such as field trials or clinical trials, being conducted to obtain FDA or other governmental approvals to market LICENSED PRODUCTS or otherwise commercially use LICENSED PROCESSES.

1.3 "LICENSED PRODUCT(S)" means any product or product part which:

- (a) is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS in the country in which any such product or product part is made, used, imported, offered for sale or sold; or
- (b) is manufactured by using a LICENSED PROCESS or is employed to practice a LICENSED PROCESS.

1.4 "LICENSED PROCESS(ES)" means any process or method that is covered in whole or in part by an issued, unexpired claim or a pending claim contained in the PATENT RIGHTS.

1.5 "NET SALES" means the amount billed or invoiced on sales, rental or lease, however characterized, by LICENSEE and SUBLICENSEES of LICENSED PRODUCTS and uses of LICENSED PROCESSES, less

- (a) discounts allowed in amounts customary in the trade;
 - (b) sales, tariff duties and/or use taxes included in bills or invoices with reference to particular sales and actually paid by LICENSEE or SUBLICENSEE(S) to a governmental unit;
 - (c) outbound transportation prepaid or allowed; or
 - (d) amounts refunded or credited on returns.
-

No deductions shall be made for the cost of collections or for commissions, whether paid to independent sales agencies or regular employees of LICENSEE or SUBLICENSEE(S).

Whenever the term "LICENSED PRODUCT" may apply to a property during various stages of manufacture, use, sale, or other transfer, NET SALES shall be based on the amount derived by LICENSEE or SUBLICENSEES from the sale, distribution or use of such LICENSED PRODUCT at the stage of its highest billed or invoiced value to unrelated third parties.

1.6 "PATENT RIGHTS" means MICHIGAN'S legal rights under the patent laws of the United States or relevant foreign countries for all of the following:

- (a) the United States and foreign patents and/or patent applications listed in Appendix A;
- (b) United States and foreign patents issued from the applications listed in Appendix A and from divisionals and continuations (except continuations-in-part) of these applications;
- (c) claims in all foreign patent applications listed in Appendix A, and of the resulting patents, which are directed to subject matter specifically described in the United States patents and/or patent applications described in (a) or (b) above;
- (d) claims in all patent applications, and of the resulting patents, which are directed to subject matter specifically described as of the Effective Date in the MICHIGAN Office of Technology Transfer files listed in Appendix A; and
- (e) any reissued or reexamined patents based upon the United States patents described in (a), (b) or (d) above.

1.7 "ROYALTY PERIOD(S)" means the six-month periods ending on the last days of June and December.

1.8 "SUBLICENSEE(S)" means any person or entity sublicensed by LICENSEE under this Agreement.

1.9 "TERRITORY" means the United States; provided, however, only with respect to File No. 1225 identified on Appendix A, "TERRITORY" means the United States and Canada.

ARTICLE 2 - GRANT OF LICENSE

2.1 MICHIGAN hereby grants to LICENSEE an exclusive license with the right to grant sublicenses, both subject to the terms and conditions of this Agreement, in the FIELD OF USE and the TERRITORY to make, have made, import, use, market, offer for sale and sell LICENSED PRODUCTS and to practice LICENSED PROCESSES.

2.2 MICHIGAN reserves (without limiting the rights granted to LICENSEE in paragraph 2.1) the right for MICHIGAN and its subsidiaries to practice the PATENT RIGHTS for research, internal and/or educational purposes only.

2.3 This Agreement shall extend until expiration of the last to expire of the licensed PATENT RIGHTS, unless sooner terminated as provided in another specific Article of this Agreement.

2.4 LICENSEE agrees that LICENSED PRODUCTS used, leased or sold in the United States shall be manufactured substantially in the United States.

2.5 MICHIGAN further reserves the right to grant to the U.S. Government a nonexclusive, irrevocable, royalty-free license or licenses, with the right to sublicense, to all patent applications and resulting patents included in the PATENT RIGHTS, to the extent that such grant of license(s) is or may be required by research funding agreements between MICHIGAN and the U.S. Government entered into prior to the Effective Date of this Agreement.

ARTICLE 3 - CONSIDERATION

3.1 LICENSEE shall pay royalties to MICHIGAN until the expiration date of the last to expire of PATENT RIGHTS or until this Agreement is terminated. Royalties shall include:

- (a) Running Royalties equal to three percent (3%) of NET SALES. If LICENSEE makes any NET SALES to any party affiliated with LICENSEE, or in any way directly or indirectly related to or under the common control with LICENSEE, at a price less than the regular price charged to other parties, the Running Royalties payable to MICHIGAN shall be computed on the basis of the regular price charged to other parties. LICENSEE shall be entitled to reduce the Running Royalties for any LICENSED PRODUCT by up to fifty percent (50%) by applying as a credit against such Running Royalties up to fifty percent (50%) of any royalties actually paid during the applicable ROYALTY PERIOD to any third party for the same LICENSED PRODUCT pursuant to a license agreement for the third party's patent rights covering such LICENSED PRODUCT. Further, in the event that the Running Royalties payable to LICENSEE by any SUBLICENSEE pursuant to the terms of a sublicense agreement do not exceed five percent (5%) of NET SALES (but are at least four percent (4%) of NET SALES) then the Running Royalty rate applicable to NET SALES made by such SUBLICENSEE shall (in lieu of a three percent (3%) rate), be a rate equal to fifty percent (50%) of the rate set forth in such sublicense agreement.

- (b) During the one year period immediately following the Effective Date, fifty percent (50%), during the one year period immediately following the first anniversary of the Effective Date, twenty-five percent (25%), and during the period following the second anniversary of the Effective Date, ten percent (10%) of any revenue not based on NET SALES (e.g., license issue fees, maintenance fees) LICENSEE receives from SUBLICENSEES or assignees in consideration for rights to practice PATENT RIGHTS, provided, however, that such revenue shall not include amounts received by LICENSEE which are "research and/or development funds."
- (c) MICHIGAN'S back patent costs in the amount of Fifty Three Thousand Nine Hundred Seventy Four and 62/100 Dollars (\$53,974.62), one-third (1/3) of this amount due thirty (30) days from the Effective Date of this Agreement and one-third (1/3) of this amount due on each of the first and second anniversaries of the Effective Date of this Agreement. Pursuant to the Patent Option Agreement (the "Patent Option Agreement") entered into on November 18, 2002 between LICENSEE and MICHIGAN, LICENSEE shall receive a credit in the amount of Ten Thousand Dollars (\$10,000) toward the first of these three (3) installment payments; and in lieu of the credit toward the License Issue Fee referred to in the Patent Option Agreement (the parties having agreed that LICENSEE shall not be required to pay a License Issue Fee) LICENSEE shall receive an additional credit in the amount of Five Thousand Dollars (\$5,000) toward the first of these three (3) installment payments.
- (d) LICENSEE shall pay to MICHIGAN an annual license maintenance fee ("Annual Fee") in the amount of Ten Thousand Dollars (\$10,000). This Annual Fee shall be due on the last day of June, in the year 2004, and in each year thereafter during the term of this Agreement. LICENSEE may credit each annual fee in full against all royalties otherwise due MICHIGAN for the calendar year in which LICENSEE pays the specific Annual Fee. The year for which LICENSEE may credit a given Annual Fee against royalties includes the ROYALTY PERIOD in which the Annual Fee is due and the next ROYALTY PERIOD.
- (e) LICENSEE shall make the Milestone payments set forth in Appendix B on or before the respective payment dates set forth therein.

3.2 LICENSEE shall be responsible for the payment of all taxes (excluding income taxes owed by MICHIGAN), duties, levies, and other charges imposed by any taxing authority with respect to the royalties payable to MICHIGAN under this Agreement. Should LICENSEE be required under any law or regulation of any government entity or authority, domestic or foreign, to withhold or deduct any portion of the payments on royalties due to MICHIGAN, then the sum payable to MICHIGAN shall be increased by the amount necessary to yield to MICHIGAN an amount equal to the sum it would have received had no withholdings or deductions been made; provided, however, that in such event, MICHIGAN shall not be entitled to any refund of such amounts withheld or deducted. MICHIGAN shall cooperate reasonably with LICENSEE in the event LICENSEE elects to assert, at its own expense, MICHIGAN's exemption from any such tax or deduction or in the event LICENSEE claims a refund of any amounts which it withheld or deducted.

3.3 LICENSEE is not obligated to pay multiple royalties if any LICENSED PRODUCT or LICENSED PROCESS is covered by more than one claim of PATENT RIGHTS.

3.4 Royalty payments shall be paid to the "Regents of the University of Michigan" in United States dollars in Ann Arbor, Michigan, sent as provided in Article 13 or at such other place as MICHIGAN may reasonably designate consistent with the laws and regulations controlling in any country.

3.5 In computing royalties, LICENSEE shall convert any revenues it receives in foreign currency into its equivalent in United States dollars at the exchange rate LICENSEE ordinarily employs in making reports to relevant regulatory and taxing authorities, consistent with fair business practices and generally accepted accounting principles.

3.6 Royalty payments shall be made on a semi-annual basis with submission of the reports required by Article 4. All amounts due under this Agreement, including amounts due for the payment of patent expenses, shall, if overdue, bear interest until payment at a per annum rate five percent (5%) above the prime rate in effect at the JP Morgan Chase Bank or its successor on the due date, or at the highest allowed rate if a lower rate is required by law. The payment of such interest shall not foreclose MICHIGAN from exercising any other rights it may have resulting from any late payment.

3.7 In further consideration of the license hereby granted, LICENSEE agrees that MICHIGAN shall be entitled to an equity interest in LICENSEE on the following basis:

Within thirty (30) days of the Effective Date of this Agreement, LICENSEE shall issue to MICHIGAN the number of Units of LICENSEE equal to three percent (3%) of the total of LICENSEE's issued and outstanding Units on a fully diluted basis (the "MICHIGAN Units"). The term "fully diluted basis" means the number of all Units of LICENSEE issued and outstanding as of the Effective Date of this Agreement, and the number of all Units of LICENSEE which are issuable, as of the Effective Date of this Agreement, pursuant to any Unit option, warrant, or other security convertible into Units of LICENSEE, whether vested, unvested, exercisable or unexercisable. The MICHIGAN Units shall be provided with preferences equal, as of the date of their issuance, to those held by each holder of LICENSEE's Units as of such date; provided, however, that the holders of MICHIGAN Units shall not be entitled to the special allocations to the holders of "First Round Units" as set forth in the Amendments to LICENSEE's Operating Agreement dated as of December 12, 2002 and as of August 28, 2003. Prior to or concurrent with the issuance of the MICHIGAN Units, MICHIGAN shall execute a subscription agreement for the MICHIGAN Units, in a form mutually acceptable to MICHIGAN and LICENSEE, pursuant to which MICHIGAN will (i) make standard investment representations and warranties (including a representation and warranty that MICHIGAN is an accredited investor as defined under Regulation D promulgated under the Securities Act of 1933, as amended), (ii) acknowledge that it will become a "Member" of LICENSEE (as such term is defined in LICENSEE'S Operating Agreement), and (iii) agree to execute an Addendum to LICENSEE's Operating Agreement pursuant to which MICHIGAN agrees to be bound by the terms and provisions of LICENSEE's Operating Agreement. MICHIGAN acknowledges that its percentage interest in LICENSEE will be subject to dilution upon the future issuance by LICENSEE of additional Units of LICENSEE's equity in accordance with the terms and provisions of LICENSEE's Operating Agreement.

ARTICLE 4 - REPORTS

4.1 Until the FIRST COMMERCIAL SALE, LICENSEE shall provide to MICHIGAN a written annual report on or before September 1 of each calendar year. The annual report shall include: reports of progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales during the preceding twelve (12) months, and plans for the coming year.

4.2 After the FIRST COMMERCIAL SALE, LICENSEE shall provide semi-annual reports to MICHIGAN. Within thirty (30) days after each ROYALTY PERIOD closes (including the close of the ROYALTY PERIOD immediately following any termination of this Agreement), LICENSEE shall report to MICHIGAN for that ROYALTY PERIOD:

- (a) number of LICENSED PRODUCTS manufactured and sold by LICENSEE and all SUBLICENSEES;
- (b) total billings for LICENSED PRODUCTS sold by LICENSEE and all SUBLICENSEES;
- (c) total billings by LICENSEE and all SUBLICENSEES for all LICENSED PROCESSES;
- (d) deductions applicable as provided in the definition for NET SALES in Paragraph 1.5;
- (e) royalties due on additional payments from SUBLICENSEES under Paragraph 3.1(b);
- (f) total royalties due;
- (g) names and addresses of all SUBLICENSEES; and
- (h) for each sublicense or amendment thereto completed in the prior six-month period, the date of each agreement and amendment, the territory of the sublicense, the scope of the sublicense, and the nature, timing and amounts of all fees and royalties to be paid thereunder.

LICENSEE shall include the amount of all payments due, and the various calculations used to arrive at those amounts, including the quantity, description (nomenclature and type designation as described in Paragraph 4.3), country of manufacture and country of sale of LICENSED PRODUCTS. If no payment is due, LICENSEE shall so report. LICENSEE shall direct its authorized representative to certify that reports required hereunder are correct to the best of LICENSEE's knowledge and information. Failure to provide reports as required under this Article shall be a material breach of this Agreement.

4.3 LICENSEE covenants that it will promptly establish and consistently employ a system of specific nomenclature and type designations for LICENSED PRODUCTS and LICENSED PROCESSES to permit identification and segregation of various types where necessary. LICENSEE shall consistently employ, and shall require SUBLICENSEES to consistently employ, the system when rendering invoices thereon and shall inform MICHIGAN, or its auditors, when requested, as to the details concerning such nomenclature system, all additions thereto and changes therein.

4.4 LICENSEE shall keep, and shall require SUBLICENSEES to keep, true and accurate records containing data reasonably required for the computation and verification of payments due under this Agreement. LICENSEE shall, and it shall require all SUBLICENSEES to:

- (1) open such records for inspection upon reasonable notice during business hours by either MICHIGAN auditor(s) or an independent certified accountant selected by MICHIGAN, for the purpose of verifying the amount of payments due; and
- (2) retain such records for six (6) years from date of origination.

The terms of this Article shall survive any termination of this Agreement. MICHIGAN is responsible for all expenses of such inspection, except that if any inspection reveals an underpayment greater than five percent (5%) of royalties due MICHIGAN, then LICENSEE shall pay all expenses of that inspection and the amount of the underpayment and interest to MICHIGAN within twenty (20) days of written notice thereof. LICENSEE shall also reimburse MICHIGAN for reasonable expenses required to collect the amount underpaid.

ARTICLE 5 - DILIGENCE

5.1 LICENSEE has the responsibility to do all that is necessary to obtain and retain any governmental approvals to manufacture and/or sell LICENSED PRODUCTS and/or use LICENSED PROCESSES for all relevant activities of LICENSEE and SUBLICENSEES.

5.2 LICENSEE shall use commercially reasonable efforts to bring one or more LICENSED PRODUCTS to market or one or more LICENSED PROCESSES to commercial use through a thorough, vigorous and diligent program for exploiting the PATENT RIGHTS and to continue active, diligent marketing efforts for one or more LICENSED PRODUCTS or LICENSED PROCESSES throughout the life of this Agreement.

5.3 As part of the diligence required by Paragraph 5.2, LICENSEE agrees to reach the commercialization and research and development milestones for the LICENSED PRODUCTS and LICENSED PROCESSES (together the "MILESTONES") set forth in Appendix C.

5.4 (a) MICHIGAN acknowledges that the technology licensed to LICENSEE is very early stage. Its successful commercialization into LICENSED PRODUCTS will require considerable additional research, testing, funding, regulatory approval, strategic alliances, and substantial commitments to third parties, and may require LICENSEE to secure additional intellectual property rights. The MILESTONES are believed to be appropriate and reasonable as of the Effective Date of this Agreement, but are inherently speculative and based upon events that are not completely under the control of LICENSEE.

(b) LICENSEE will use reasonable efforts to achieve the MILESTONES on or before the deadline dates indicated on Appendix C and shall notify MICHIGAN if it appears that its achievement of such MILESTONES is unrealistic. If LICENSEE fails to meet any MILESTONE on Appendix C, fails to provide a reasonable explanation for such failure, and fails to provide a commercially reasonable, adjusted schedule for achieving such MILESTONE, and if such failure continues for sixty (60) days after the date of any MILESTONE deadline (or revised MILESTONE deadline), LICENSEE will be deemed to be in material breach of this Agreement and MICHIGAN may terminate this Agreement effective on thirty (30) days notice, unless LICENSEE achieves the MILESTONE within this thirty (30) day period or unless LICENSEE reasonably disputes the basis for the termination.

ARTICLE 6 - SUBLICENSING

6.1 LICENSEE shall notify MICHIGAN in writing of every sublicense agreement and each amendment thereto within thirty (30) days after their execution, and indicate the name of the SUBLICENSEE, the territory of the sublicense, the scope of the sublicense, and the nature, timing and amounts of all fees and royalties to be paid thereunder.

6.2 LICENSEE shall not receive from SUBLICENSEES anything of value other than cash payments in consideration for any sublicense under this Agreement, without the express prior written permission of MICHIGAN, which permission shall not be unreasonably withheld or delayed.

6.3 Each sublicense granted by LICENSEE under this Agreement shall provide for its termination upon termination of this Agreement. Each sublicense shall terminate upon termination of this Agreement unless LICENSEE has previously assigned its rights under the sublicense to MICHIGAN and MICHIGAN has agreed at its sole discretion in writing to such assignment.

6.4 LICENSEE shall require that all sublicenses:

- (1) be consistent with the terms and conditions of this Agreement;
- (2) contain the SUBLICENSEE'S acknowledgment of the disclaimer of warranty and limitation on MICHIGAN's liability, as provided by Article 9 below; and

(3) contain provisions under which the SUBLICENSEE accepts duties at least equivalent to those accepted by the LICENSEE in the following Articles:

- 4.4 duty to keep records
- 9.4 duty to avoid improper representations or responsibilities
- 10.1 duty to defend, hold harmless, and indemnify MICHIGAN
- 10.3 duty to maintain insurance
- 14.5 duty to properly mark LICENSED PRODUCTS with patent notices.
- 14.7 duty to restrict the use of MICHIGAN's name
- 14.8 duty to control exports

6.5 LICENSEE shall cause every sublicense to provide LICENSEE the right to assign its rights under the sublicense to MICHIGAN. Any such assignment is subject to the limitations of Article 14.11 herein and, to be effective, MICHIGAN must first accept at its sole discretion such assignment in writing.

ARTICLE 7 - PATENT APPLICATIONS AND MAINTENANCE

7.1 MICHIGAN has the right to control all aspects of filing, prosecuting, and maintaining all of the patents and patent applications that form the basis for the PATENT RIGHTS, including foreign filings and Patent Cooperation Treaty filings. LICENSEE shall, at its own expense, perform all actions and execute or cause to be executed all documents necessary to support such filing, prosecution, or maintenance.

7.2 MICHIGAN shall notify LICENSEE of all information received by MICHIGAN relating to the filing, prosecution and maintenance of the patents and patent applications which form the basis of the PATENT RIGHTS, including any lapse, revocation, surrender, invalidation or abandonment of any of the patents or patent applications which form the basis for the PATENT RIGHTS, and shall make reasonable efforts to allow LICENSEE to review and comment upon such information.

7.3 LICENSEE shall reimburse MICHIGAN for all fees and costs relating to the filing, prosecution, interference proceedings and maintenance of the PATENT RIGHTS except as specifically provided below. Such reimbursement shall be made within thirty (30) days of receipt of MICHIGAN's invoice and shall bear interest, if overdue, at the rate specified in Paragraph 3.6 above.

7.4 LICENSEE may elect to not reimburse MICHIGAN for fees and costs related to a particular foreign patent application or patent within PATENT RIGHTS, subject to the terms of this Paragraph. If LICENSEE makes such an election, LICENSEE shall provide reasonable notice to MICHIGAN in writing of an election under this Paragraph. Under such circumstances, MICHIGAN may elect to continue the prosecution and/or maintenance of such application or patent at its sole expense, provided that such patent applications and issued patents thereafter shall be excluded from the definition of PATENT RIGHTS.

ARTICLE 8 - ENFORCEMENT

8.1 Each party shall promptly advise the other in writing of any known acts of potential infringement of the PATENT RIGHTS by another party. LICENSEE has the first option to police the PATENT RIGHTS against infringement by other parties within the TERRITORY and the FIELD OF USE, but LICENSEE shall notify MICHIGAN in writing twenty (20) days before filing any suit. This right to police includes defending any action for declaratory judgment of noninfringement or invalidity; and prosecuting, defending or settling all infringement and declaratory judgment actions at its expense and through counsel of its selection, except that LICENSEE shall make any such settlement only with the advice and consent of MICHIGAN. MICHIGAN shall provide reasonable assistance to LICENSEE with respect to such actions, but only if LICENSEE reimburses MICHIGAN for out-of-pocket expenses incurred in connection with any such assistance rendered at LICENSEE'S request or reasonably required by MICHIGAN and if LICENSEE notifies MICHIGAN in writing twenty (20) days before filing any suit. MICHIGAN retains the right to participate, with counsel of its own choosing and at its own expense, in any action under this Paragraph. LICENSEE shall defend, indemnify and hold harmless MICHIGAN with respect to any counterclaims asserted by an alleged infringer reasonably related to the enforcement of the PATENT RIGHTS under this Paragraph, including but not limited to antitrust counterclaims.

8.2 If LICENSEE undertakes to enforce and/or defend the PATENT RIGHTS by litigation in the United States, LICENSEE may withhold up to fifty percent (50%) of the payments otherwise thereafter due during the course of such litigation to MICHIGAN under Article 3 under the following terms. LICENSEE may apply the amounts withheld to pay up to half of LICENSEE's out-of-pocket litigation expenses, including reasonable attorneys' fees, but not including salaries of LICENSEE's employees. If LICENSEE recovers damages in the patent litigation, the award shall be applied first to satisfy LICENSEE'S unreimbursed expenses and legal fees for the litigation, next to reimburse MICHIGAN for any payments under Article 3 which are past due or were withheld pursuant to this Article 8, and then to reimburse MICHIGAN for any other unreimbursed expenses and legal fees for the litigation. The remaining balance shall be divided equally between LICENSEE and MICHIGAN.

If LICENSEE undertakes to enforce and/or defend the PATENT RIGHTS by litigation in a foreign county, and recovers damages in the patent litigation, the award shall be applied first to satisfy LICENSEE'S unreimbursed expenses and legal fees for the litigation, and next to reimburse MICHIGAN for any payments under Article 3 which are past due, and then to reimburse MICHIGAN for any unreimbursed expenses and legal fees for the litigation. The remaining balance shall be divided equally between LICENSEE and MICHIGAN.

8.3 If LICENSEE fails to take action to abate any alleged infringement of patents which form the basis for the PATENT RIGHTS within sixty (60) days of a request by MICHIGAN to do so (or within a shorter period if required to preserve the legal rights of MICHIGAN under any applicable laws) then MICHIGAN has the right to take such action (including prosecution of a suit) at its expense and LICENSEE shall use reasonable efforts to cooperate in such action, at LICENSEE's expense. LICENSEE shall incur no liability to MICHIGAN for LICENSEE'S failure to take any such abatement action requested by MICHIGAN. MICHIGAN has full authority to settle on such terms as MICHIGAN determines, except that MICHIGAN shall not reach any settlement whereby it provides a license for future activities to a third party under the PATENT RIGHTS in the TERRITORY and the FIELD OF USE without the consent of LICENSEE, which consent LICENSEE can withhold for any reason. MICHIGAN retains one hundred percent (100%) of any recovery or settlement under this Paragraph 8.3 after reimbursement of MICHIGAN's out-of-pocket expenses and payment to LICENSEE (such payment not to exceed the recovery or settlement amounts MICHIGAN actually receives) of any unrecovered expenses LICENSEE pays at MICHIGAN's request to third parties in furtherance of such action.

ARTICLE 9 - NO WARRANTIES; LIMITATION ON MICHIGAN'S LIABILITY

9.1 MICHIGAN, including its Regents, fellows, officers, employees and agents, makes no representations or warranties that PATENT RIGHTS are or will be held valid, or that the manufacture, importation, use, offer for sale, sale or other distribution of any LICENSED PRODUCTS or use of LICENSED PROCESSES will not infringe upon any patent or other rights.

9.2 MICHIGAN, INCLUDING ITS REGENTS, FELLOWS, OFFICERS, EMPLOYEES AND AGENTS, MAKES NO REPRESENTATIONS, EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ASSUMES NO RESPONSIBILITIES WHATEVER WITH RESPECT TO DESIGN, DEVELOPMENT, MANUFACTURE, USE, SALE OR OTHER DISPOSITION BY LICENSEE OR SUBLICENSEES OF LICENSED PRODUCTS OR LICENSED PROCESSES.

9.3 LICENSEE AND SUBLICENSEES ASSUME THE ENTIRE RISK AS TO PERFORMANCE OF LICENSED PRODUCTS AND LICENSED PROCESSES. In no event shall MICHIGAN, including its Regents, fellows, officers, employees and agents, be responsible or liable for any direct, indirect, special, incidental, or consequential damages or lost profits or other economic loss or damage with respect to LICENSED PRODUCTS or LICENSED PROCESSES, to LICENSEE, SUBLICENSEES or any other individual or entity regardless of legal theory. The above limitations on liability apply even though MICHIGAN, its Regents, fellows, officers, employees or agents may have been advised of the possibility of such damage.

9.4 LICENSEE shall not, and shall require that its SUBLICENSEES do not, make any statements, representations or warranties whatsoever to any person or entity, or accept any liabilities or responsibilities whatsoever from any person or entity that are inconsistent with any disclaimer or limitation included in this Article 9.

ARTICLE 10 - INDEMNITY; INSURANCE

10.1 LICENSEE shall defend, indemnify and hold harmless and shall require SUBLICENSEES to defend, indemnify and hold harmless MICHIGAN, its Regents, fellows, officers, employees and agents, for and against any and all claims, demands, damages, losses, and expenses of any nature (including attorneys' fees and other litigation expenses), resulting from, but not limited to, death, personal injury, illness, property damage, economic loss or products liability arising from or in connection with, any of the following:

- (1) Any manufacture, use, sale or other disposition by LICENSEE or SUBLICENSEES of LICENSED PRODUCTS or LICENSED PROCESSES;
- (2) The direct or indirect use by any person of LICENSED PRODUCTS made, used, sold or otherwise distributed by LICENSEE or SUBLICENSEES;
- (3) The use or practice by LICENSEE or SUBLICENSEES of any invention related to the PATENT RIGHTS.

10.2 MICHIGAN is entitled to participate at its option and expense through counsel of its own selection, and may join in any legal actions related to any such claims, demands, damages, losses and expenses under Paragraph 10.1 above.

10.3 Prior to any distribution or commercial use of any LICENSED PRODUCT or use of any LICENSED PROCESS by LICENSEE, LICENSEE shall purchase and maintain in effect a policy of product liability insurance, completed operations, and/or errors and omissions insurance, whichever is applicable to such activity. Prior to any distribution or use of any LICENSED PRODUCT or use of any LICENSED PROCESS by a SUBLICENSEE, LICENSEE shall require that the SUBLICENSEE purchase and maintain in effect a policy of product liability insurance and/or errors and omissions insurance, whichever is applicable to such activity. Each such insurance policy must provide reasonable coverage for all claims with respect to any LICENSED PROCESS used and any LICENSED PRODUCTS manufactured, used, sold, licensed or otherwise distributed by LICENSEE -- or, in the case of a SUBLICENSEE's policy, by said SUBLICENSEE -- and must specify MICHIGAN, including its Regents, fellows, officers and employees, as an additional insured. LICENSEE shall furnish certificate(s) of such insurance to MICHIGAN, upon request.

ARTICLE 11 - TERM AND TERMINATION

11.1 If LICENSEE ceases to carry on its business, this Agreement shall terminate upon written notice by MICHIGAN.

11.2 If LICENSEE fails to make any payment due to MICHIGAN, MICHIGAN has the right to terminate this Agreement effective on thirty (30) days' written notice, unless LICENSEE makes all such payments within the thirty (30) day period. If LICENSEE has not made all such payments to MICHIGAN by the time the thirty (30) day period expires, this Agreement shall automatically terminate.

11.3 Upon any material breach or default of this Agreement by LICENSEE other than those occurrences listed in Paragraphs 5.3, 5.4, 11.1 and 11.2 (the terms of which shall take precedence over the handling of any other material breach or default under this Paragraph 11.3), MICHIGAN has the right to terminate this Agreement effective on sixty (60) days' written notice to LICENSEE. Such termination shall become automatically effective upon expiration of the sixty (60) day period unless LICENSEE cures the material breach or default before the period expires.

11.4 LICENSEE has the right to terminate this Agreement at any time on six (6) months' written notice to MICHIGAN if LICENSEE:

- (a) pays all amounts due MICHIGAN through the effective date of the termination;
- (b) submits a final report of the type described in Paragraph 4.2;
- (c) returns any confidential or trade-secret materials provided to LICENSEE by MICHIGAN in connection with this Agreement, or, with prior approval by MICHIGAN, destroys such materials, and certifies in writing that such materials have all been returned or destroyed ;
- (d) suspends its use of the LICENSED PROCESS(ES) AND LICENSED PRODUCT(S) (subject to Paragraph 11.5 below);
- (e) provides MICHIGAN with all data and know-how developed by LICENSEE on or after the Effective Date of this Agreement and which are directly related to LICENSED PRODUCTS and LICENSED PROCESSES. MICHIGAN shall have the non-exclusive right to use such data and know-how for any purpose whatsoever, including the right to transfer same to future licensees; and
- (f) provides MICHIGAN the right to access any regulatory information filed with any U.S. or foreign government agency with respect to LICENSED PRODUCTS and LICENSED PROCESSES.

Upon written notice from LICENSEE of intent to terminate, MICHIGAN may elect by written notice to LICENSEE to immediately terminate this Agreement.

11.5 Upon any termination of this Agreement, and except as provided herein to the contrary, all rights and obligations of the parties hereunder shall cease, except any previously accrued rights and obligations and further as follows:

- (1) Obligations to pay royalties and other sums accruing hereunder up to the effective date of the termination;

- (2) MICHIGAN's rights to inspect books and records as described in Article 4, and LICENSEE's obligations to keep such records for the required time;
- (3) Obligations to hold harmless, defend and indemnify MICHIGAN and its Regents, fellows, officers, employees and agents under Article 10;
- (4) Any cause of action or claim of LICENSEE or MICHIGAN accrued or to accrue because of any breach or default by the other party hereunder;
- (5) The provisions of Articles 1, 9, and 14; and
- (6) All other terms, provisions, representations, rights and obligations contained in this Agreement that by their sense and context are intended to survive until performance thereof by either or both parties.

11.6 After the license(s) granted herein terminate, if LICENSEE has filed patent applications or obtained patents to any modification or improvement to LICENSED PRODUCTS or LICENSED PROCESSES within the scope of the PATENT RIGHTS, LICENSEE agrees upon request to enter into good faith negotiations with MICHIGAN or MICHIGAN's future licensee(s) for the purpose of granting licensing rights to said modifications or improvements in a timely fashion and under commercially reasonable terms.

ARTICLE 12 - REGISTRATION AND RECORDATION

12.1 If the terms of this Agreement, or any assignment or license under this Agreement are or become such as to require that the Agreement or license or any part thereof be registered with or reported to a national or supranational agency of any area in which LICENSEE or SUBLICENSEES would do business, LICENSEE will, at its expense, undertake such registration or report. Prompt notice and appropriate verification of the act of registration or report or any agency ruling resulting from it will be supplied by LICENSEE to MICHIGAN.

12.2 LICENSEE shall also carry out, at its expense, any formal recordation of this Agreement or any license herein granted that the law of any country requires as a prerequisite to enforceability of the Agreement or license in the courts of any such country or for other reasons, and shall promptly furnish to MICHIGAN appropriately verified proof of recordation.

ARTICLE 13 - NOTICES

13.1 Any notice, request, report or payment required or permitted to be given or made under this Agreement by either party may be mailed if sent by certified or registered mail, return receipt requested, or may be delivered by a nationally recognized courier service, to the address set forth below or such other address as such party specifies by written notice given in conformity herewith. Any notice, request, report or payment is not effective until actually received by the other party.

To MICHIGAN: The University of Michigan
Office of Technology Transfer
Wolverine Tower, Room 2071
3003 S. State Street
Ann Arbor, MI 48109-1280

Attn: File No. 290 and 1225

To LICENSEE: Cellestar, LLC
505 South Rosa Road
Madison, WI 53719
Attn: President

With a courtesy copy to: Neider & Boucher, S.C.
440 Science Drive, Suite 300
Madison, WI 53711
Attn: Charles E. Neider

ARTICLE 14 - MISCELLANEOUS PROVISIONS

14.1 This Agreement shall be construed, governed, interpreted and applied according to United States and State of Michigan law, except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent was granted.

14.2 The parties hereby consent to the jurisdiction of the courts in the State of Michigan over any dispute concerning this Agreement or the relationship between the parties. Should LICENSEE bring any claim, demand or other action against MICHIGAN, its Regents, fellows, officers, employees or agents, arising out of this Agreement or the relationship between the parties, LICENSEE agrees to bring said action only in the Michigan Court of Claims.

14.3 MICHIGAN and LICENSEE agree that this Agreement sets forth their entire understanding concerning the subject matter of this Agreement, and no modification of the Agreement will be effective unless both MICHIGAN and LICENSEE agree to it in writing.

14.3.1 Except as otherwise provided in this Paragraph 14.3.1, during the term of this Agreement and for a period of seven (7) years thereafter, each party shall maintain in confidence and use only for purposes of this Agreement all information and data ("Information") supplied by the other party under this Agreement and marked "Confidential."

To the extent it is reasonably necessary or appropriate to fulfill its obligations or exercise its rights under this Agreement, (a) a party may disclose Information it is otherwise obligated under this Paragraph 14.3.1 not to disclose, to its affiliates, sublicensees, consultants, outside contractors and clinical investigators, on a need-to-know basis on condition that such third parties agree to keep the Information confidential for the same time periods and to the same extent as the disclosing party is required to keep the Information confidential; and (b) a party may disclose such Information to government or other regulatory authorities to the extent that such disclosure is required by applicable law, regulation or court order, or is reasonably necessary to obtain patents or authorizations to conduct clinical trials with, and to commercially market the LICENSED PRODUCTS, provided that the disclosing party shall provide written notice to the other party and sufficient opportunity to the other party to object to such disclosure or to request confidential treatment thereof.

The obligation not to disclose or use Information shall not apply to any part of such Information that (i) is or becomes patented, published or otherwise part of the public domain other than by acts of the party obligated not to disclose such Information or its affiliates or sublicensees in contravention of this Agreement; (ii) is disclosed to the receiving party, its affiliates or sublicensees by a third party, provided such Information was not obtained by such third party directly or indirectly from the other party; (iii) prior to disclosure under this Agreement, was already in the possession of the receiving party, its affiliates or sublicensees, provided such Information was not obtained directly or indirectly from the other party; or (iv) is independently developed by or for the receiving party or its affiliates or sublicensees by third parties who did not have access to Information disclosed by the other party.

The foregoing provisions shall not prohibit the disclosure of any of the terms or conditions of this Agreement to any third party.

14.4 If a court of competent jurisdiction finds any term of this Agreement invalid, illegal or unenforceable, that term will be curtailed, limited or deleted, but only to the extent necessary to remove the invalidity, illegality or unenforceability, and without in any way affecting or impairing the remaining terms.

14.5 LICENSEE agrees to mark the LICENSED PRODUCTS sold in the United States with all applicable United States patent numbers. All LICENSED PRODUCTS shipped to or sold in other countries shall be marked to comply with the patent laws and practices of the countries of manufacture, use and sale.

14.6 No waiver by either party of any breach of this Agreement, no matter how long continuing or how often repeated, is a waiver of any subsequent breach thereof, nor is any delay or omission on the part of either party to exercise or insist on any right, power, or privilege hereunder a waiver of such right, power or privilege.

14.7 LICENSEE agrees to refrain from using and to require SUBLICENSEES to refrain from using the name of MICHIGAN in publicity or advertising without the prior written approval of MICHIGAN. Reports in scientific literature and presentations of joint research and development work are not publicity. Notwithstanding this provision, without prior written approval of MICHIGAN, LICENSEE and SUBLICENSEES may state publicly that LICENSED PRODUCTS and LICENSED PROCESSES were developed by LICENSEE based upon an invention(s) developed at the University of Michigan and/or that the PATENT RIGHTS were licensed from the University of Michigan.

14.8 LICENSEE agrees to comply with all laws and regulations applicable to the LICENSED PRODUCTS and LICENSED PROCESSES. In particular, LICENSEE understands and acknowledges that the transfer of certain commodities and technical data is subject to United States laws and regulations controlling the export of such commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce. These laws and regulations prohibit or require a license for the export of certain types of technical data to certain specified countries. LICENSEE agrees to comply with all United States laws and regulations controlling the export of LICENSED PRODUCTS and technical data related to LICENSED PRODUCTS or LICENSED PROCESSES, to be solely responsible for any violation of such laws and regulations by LICENSEE or its sublicensees, and to defend, indemnify and hold harmless MICHIGAN and its Regents, fellows, officers, employees and agents if any legal action of any nature results from the violation.

14.9 The relationship between the parties is that of independent contractor and contractee. Neither party is an agent of the other in connection with the exercise of any rights hereunder, and neither has any right or authority to assume or create any obligation or responsibility on behalf of the other.

14.10 Neither party hereto is in default of any provision of this Agreement for any failure in performance resulting from acts or events beyond the reasonable control of such party, such as Acts of God, acts of civil or military authority, civil disturbance, war, strikes, fires, power failures, natural catastrophes or other "force majeure" events.

14.11 LICENSEE may not assign this Agreement without the prior written consent of MICHIGAN, which consent shall not be unreasonably withheld or delayed and shall not pledge any of the license rights granted in this Agreement as security for any creditor. Any attempted pledge of any of the rights under this Agreement or assignment of this Agreement without the prior consent of MICHIGAN will be void from the beginning. No assignment by LICENSEE will be effective until the intended assignee agrees in writing to accept all of the terms and conditions of this Agreement.

14.12 If during the term of this Agreement, LICENSEE makes or attempts to make an assignment for the benefit of creditors, or if proceedings in voluntary or involuntary bankruptcy or insolvency are instituted on behalf of or against LICENSEE (and any such involuntary bankruptcy or insolvency proceeding is not dismissed within sixty (60) days of its filing), or if a receiver or trustee is appointed for the property of LICENSEE, MICHIGAN may, at its option, terminate this Agreement and revoke the license(s) herein granted by written notice to LICENSEE. LICENSEE shall notify MICHIGAN of any such event mentioned in this Paragraph as soon as reasonably practicable, and in any event within five (5) days after any such event.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR LICENSEE

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By/s/ Terry Sivesind
(authorized representative)

By/s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: Terry Sivesind

Typed Name: Kenneth J. Nisbet

Title: Chief Operating Officer

Title: Executive Director UM Technology Transfer

Date: September 5, 2003

Date: September 16, 2003

Version 01.30.03

APPENDIX A
TO THE LICENSE AGREEMENT FOR MICHIGAN OFFICE OF TECHNOLOGY TRANSFER FILES 290 AND 1225
EFFECTIVE THE 4TH DAY OF SEPTEMBER, 2003
BETWEEN CELLECTAR, LLC
AND THE REGENTS OF THE UNIVERSITY OF MICHIGAN
PATENTS, PATENT APPLICATIONS, and MICHIGAN FILES

FILE NO. 290

- US Patent No. 4,965,391 issued 10/23/90

FILE NO. 290P2

- US Patent No. 5,087,721 issued 2/11/92

FILE NO. 290P2D1

- US Patent No. 5,347,030 issued 9/13/94

FILE NO. 290P2D1C1

- US Patent No. 5,795,561 issued 8/18/98

FILE NO. 1225

- US Patent No. 6,255,519 issued 7/3/2001
- Canadian Application Serial No. 227628 pending

FILE NO. 1225D1

- US Patent No. 6,417,384 issued 7/9/2002

APPENDIX B
TO THE LICENSE AGREEMENT FOR MICHIGAN OFFICE OF TECHNOLOGY TRANSFER FILES 290 AND 1225
EFFECTIVE THE 4TH DAY OF SEPTEMBER, 2003
BETWEEN COLLECTAR, LLC
AND THE REGENTS OF THE UNIVERSITY OF MICHIGAN

MILESTONE PAYMENTS

1. Upon LICENSEE'S filing of a corporate sponsored New Drug Application ("NDA") to the Food and Drug Administration ("FDA") for a LICENSED PRODUCT intended for use in a diagnostic application, LICENSEE will pay to MICHIGAN the sum of Fifty Thousand Dollars (\$50,000); provided, however, that LICENSEE may elect to defer all or part of this payment until the first payment pursuant to paragraph (2) below is due.
2. Within twelve (12) months of the date of the FIRST COMMERCIAL SALE of a diagnostic LICENSED PRODUCT, LICENSEE will pay to MICHIGAN the sum of One Hundred Thousand Dollars (\$100,000); provided, however, that if the total sales proceeds and royalties received by LICENSEE from all commercial sales of diagnostic LICENSED PRODUCTS within such twelve (12) month period is less than Two Hundred Thousand Dollars (\$200,000), LICENSEE will pay to MICHIGAN fifty percent (50%) of all such sales proceeds and royalties received by LICENSEE during such twelve (12) month period and will continue to pay to MICHIGAN, within ninety (90) days of LICENSEE'S receipt thereof, fifty percent (50%) of all additional sales proceeds and royalties received by LICENSEE from all commercial sales of diagnostic LICENSED PRODUCTS until LICENSEE has paid to MICHIGAN a total of One Hundred Thousand Dollars (\$100,000).
3. Upon LICENSEE'S filing of an NDA to the FDA involving a LICENSED PRODUCT with an intended use in a therapeutic indication, LICENSEE will pay to MICHIGAN the sum of Fifty Thousand Dollars (\$50,000); provided, however, that LICENSEE may elect to defer all or part of this payment until the first payment pursuant to paragraph (4) below is due.
4. Within twelve (12) months of the date of the FIRST COMMERCIAL SALE of a therapeutic LICENSED PRODUCT, LICENSEE will pay to MICHIGAN the sum of Two Hundred Thousand Dollars (\$200,000); provided, however, that if the total sales proceeds and royalties received by LICENSEE from all commercial sales of therapeutic LICENSED PRODUCTS within such twelve (12) month period is less than Four Hundred Thousand Dollars (\$400,000), LICENSEE will pay to MICHIGAN fifty percent (50%) of all such sales proceeds and royalties received by LICENSEE during such twelve (12) month period and will continue to pay to MICHIGAN, within ninety (90) days of LICENSEE'S receipt thereof, fifty percent (50%) of all additional sales proceeds and royalties received by LICENSEE from all commercial sales of therapeutic LICENSED PRODUCTS until LICENSEE has paid to MICHIGAN a total of Two Hundred Thousand Dollars (\$200,000).

APPENDIX C
TO THE LICENSE AGREEMENT FOR MICHIGAN OFFICE OF TECHNOLOGY TRANSFER FILES 290 AND 1225
EFFECTIVE THE 4TH DAY OF SEPTEMBER, 2003
BETWEEN CELLECTAR, LLC
AND THE REGENTS OF THE UNIVERSITY OF MICHIGAN

MILESTONES

Diagnostic Product Milestones:

1. Within 1 year of the EFFECTIVE DATE, LICENSEE will initiate preclinical safety and efficacy studies required to support clinical trials involving [124-I]-NM404 using PET imaging for diagnostic indications. Preclinical safety and efficacy studies shall be considered to be “initiated” upon the first administration of [124-I]-NM404 to a laboratory animal in a pre-clinical efficacy study with a study design that is consistent with industry standards for experiments designed to support an initial regulatory filing for [124-I]-NM404 for use in preliminary clinical trials for diagnostic indications.
2. Within 16 months of the EFFECTIVE DATE, LICENSEE will substantially complete a physician-sponsored IND diagnostic Phase I NM404 trial for NSCLC non-small cell lung cancer patients. The diagnostic Phase I NM404 trial shall be considered to be “substantially complete” when the number of patients who have fully completed the NM404 study protocol is sufficient to permit LICENSEE to proceed with the work needed to meet Milestone No. 3 below.
3. Within 3 years of the completion of a successful Phase I clinical trial, or within 56 months of the EFFECTIVE DATE, whichever is first, LICENSEE will submit a corporate NDA to the FDA for a LICENSED PRODUCT intended for use in a diagnostic application. A Phase I clinical trial shall be considered to be “completed” on the earlier of (1) one hundred and twenty (120) days after the final patient in the Phase I trial has completed the NM404 study protocol or (2) upon the approval by the relevant regulatory authority to initiate the next phase of clinical testing. This Milestone can be extended by one-year increments with the payment of a Twenty Thousand Dollar (\$20,000) Milestone extension fee for each such increment.
4. Within 18 months of the EFFECTIVE DATE, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I NM404 trial for at least one other cancer type or amend the IND referred to in Milestone No. 2 above so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be “initiated” upon the first administration of NM404 to a patient in such a trial.

Therapeutic Product Milestone:

1. Within 18 months of the EFFECTIVE DATE, LICENSEE will initiate preclinical safety and efficacy studies required to support clinical trials involving [131-I]-NM404 for therapeutic uses. Preclinical safety and efficacy studies shall be considered to be “initiated” upon the first administration of [131-I]-NM404 to a tumor-bearing laboratory animal in a pre-clinical efficacy study with a study design that is consistent with industry standards for experiments designed to support an initial regulatory filing for [131-I]-NM404 for use in preliminary clinical trials for therapeutic indications.

**FIRST AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN (FILE Nos. 0290 and 1225)
and
CELLECTAR, LLC**

Effective February 1, 2005, Cellectar, LLC, a Wisconsin limited liability company, with offices located at 505 South Rosa Road, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

- I. Appendix C, Milestone No. 2, is amended to read as follows:
2. By June 30, 2005, LICENSEE will substantially complete a physician-sponsored IND diagnostic Phase I NM404 trial for NSCLC non-small cell lung cancer patients. The diagnostic Phase I NM404 trial shall be considered to be "substantially complete" when the number of patients who have fully completed the NM404 study protocol is sufficient to permit LICENSEE to proceed with the work needed to meet Milestone No. 3 below.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR CELLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ Terry Sivesind
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: Terry Sivesind

Typed Name: Kenneth J. Nisbet

Title: Chief Operating Officer

Title: Executive Director UM Technology Transfer

Date: February 10, 2005

Date: February 15, 2005

**SECOND AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN (FILE Nos. 0290 and 1225)
and
CELLECTAR, LLC**

Effective October 10, 2005, Cellectar, LLC, a Wisconsin limited liability company, with offices located at 505 South Rosa Road, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

I. Appendix C, Diagnostic Product Milestone No. 2, is amended to read as follows:

2. By June 30, 2006, LICENSEE will substantially complete a physician-sponsored IND diagnostic Phase I NM404 trial for NSCLC non-small cell lung cancer patients. The diagnostic Phase I NM404 trial shall be considered to be "substantially complete" when the number of patients who have fully completed the NM404 study protocol is sufficient to permit LICENSEE to proceed with the work needed to meet Milestone No. 3 below.

II. Appendix C, Diagnostic Product Milestone No. 4 is amended to read as follows:

4. By March 31, 2006, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I NM404 trial for at least one other cancer type or amend the IND referred to in Milestone No. 2 above so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be "initiated" upon the first administration of NM404 to a patient in such a trial.

III. Appendix C, Therapeutic Product Milestone No. 1 is amended to read as follows:

1. By April 30, 2005, LICENSEE will initiate preclinical safety and efficacy studies required to support clinical trials involving [125-I]-NM404 for therapeutic uses. Preclinical safety and efficacy studies shall be considered to be "initiated" upon the first administration of [125-I]-NM404 to a tumor-bearing laboratory animal in a pre-clinical efficacy study with a study design that is consistent with industry standards for experiments designed to support an initial regulatory filing for [125-I]-NM404 for use in preliminary clinical trials for therapeutic indications.

MICHIGAN hereby acknowledges that the requirements of Therapeutic Product Milestone No. 1 were fulfilled on March 31, 2005.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR COLLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ Terry Sivesind
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: Terry Sivesind

Typed Name: Kenneth J. Nisbet

Title: Chief Operating Officer

Title: Executive Director Um Technology Transfer

Date: October 28, 2005

Date: October 10, 2005

**THIRD AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN (FILE Nos. 0290 and 1225)
and
CELLECTAR, LLC**

Effective May 3, 2006, Cellectar, LLC, a Wisconsin limited liability company, with offices located at 510 Charmany Drive, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

I. Appendix C, Diagnostic Product Milestone No. 4 is amended to read as follows:

4. By June 30, 2006, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I NM404 trial for at least one other cancer type or amend the IND referred to in Milestone No. 2 above so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be "initiated" upon the first administration of NM404 to a patient in such a trial.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR CELLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ Terry Sivesind
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: Terry Sivesind

Typed Name: Kenneth J. Nisbet

Title: Chief Operating Officer

Title: Executive Director UM Technology Transfer

Date: May 8, 2006

Date: May 3, 2006

**FOURTH AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN (FILE Nos. 0290 and 1225)
and
CELLECTAR, LLC**

Effective June 29, 2006, Collectar, LLC, a Wisconsin limited liability company, with offices located at 510 Charmany Drive, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 (the "Agreement") as follows:

I. Appendix C, Diagnostic Product Milestone Nos. 2 and 3 are hereby deleted in their entirety, and LICENSEE shall have no further obligations under the Agreement with respect to these Milestones.

II. Appendix C, Diagnostic Product Milestone No. 4 is hereby amended to read as follows:

4. By December 31, 2006, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I NM404 trial for at least one other cancer type or amend the IND referred to in former Diagnostic Product Milestone No. 2 (now deleted) so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be "initiated" upon the first administration of NM404 to a patient in such a trial.

III. Appendix B, Milestone Payment No. 1 is hereby amended to read as follows:

1. Upon the filing by LICENSEE or any SUBLICENSEE of a corporate sponsored New Drug Application ("NDA") to the Food and Drug Administration ("FDA") for a LICENSED PRODUCT intended for use in a diagnostic application, LICENSEE will pay to MICHIGAN the sum of Fifty Thousand Dollars (\$50,000); provided, however, that LICENSEE may elect to defer all or part of this payment until the first payment pursuant to paragraph (2) below is due.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR COLLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ Terry Sivesind
(authorized representative)

By: Kenneth J. Nisbet
(authorized representative)

Typed Name: Terry Sivesind

Typed Name: Kenneth K. Nisbet

Title: Chief Operating Officer

Title: Executive Director UM Technology Transfer

Date: June 29, 2006

Date: June 29, 2006

**FIFTH AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
(File Nos. 0290 and 1225)
and
CELLECTAR, LLC**

Effective June 29, 2007, Collectar, LLC, a Wisconsin limited liability company, with offices located at 545 Science Drive, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

Appendix C, Diagnostic Product Milestone No. 4 is hereby amended to read as follows:

4. By March 31, 2008, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I CLTR404 (previously known as NM404) trial for at least one other cancer type or amend the IND referred to in former Diagnostic Product Milestone No. 2 so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be "initiated" upon the first administration of CLTR404 to a patient in such a trial.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR CELLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ William R. Clarke
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: William R. Clarke

Typed Name: Kenneth J. Nisbet

Title: Chief Executive Officer

Title: Executive Director UM Technology
Transfer

Date: July 19, 2007

Date: July 11, 2007

**SIXTH AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
(File Nos. 0290 and 1225)
and
CELLECTAR, INC.**

Effective March 31, 2008, Cellectar, Inc., a Wisconsin corporation (formerly known as Cellectar, LLC, a Wisconsin limited liability company), with offices located at 3301 Agriculture Drive, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

Appendix C, Diagnostic Product Milestone No. 4 is hereby amended to read as follows:

4. By September 30, 2008, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I CLR1404 (previously known as NM404) trial for at least one other cancer type or amend the IND referred to in former Diagnostic Product Milestone No. 2 so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be "initiated" upon the first administration of CLR1404 to a patient in such a trial.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR CELLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ William R. Clarke
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: William R. Clarke

Typed Name: Kenneth J. Nisbet

Title: Chief Executive Officer

Title: Executive Director UM Technology
Transfer

Date: April 22, 2008

Date: April 16, 2008

**SEVENTH AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
(File Nos. 0290 and 1225)
and
CELLECTAR, INC.**

Effective September 30, 2008, Cellectar, Inc., a Wisconsin corporation (formerly known as Cellectar, LLC, a Wisconsin limited liability company), with offices located at 3301 Agriculture Drive, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

Appendix C, Diagnostic Product Milestone No. 4 is hereby amended to read as follows:

4. By March 31, 2009, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I CLR1404 (previously known as NM404) trial for at least one other cancer type or amend the IND referred to in former Diagnostic Product Milestone No. 2 so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be "initiated" upon the first administration of CLR1404 to a patient in such a trial.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR CELLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ William R. Clarke
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: William R. Clarke

Typed Name: Kenneth J. Nisbet

Title: Chief Executive Officer

Title: Executive Director UM Technology
Transfer

Date: October 30, 2008

Date: October 3, 2008

**EIGHTH AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
(File Nos. 0290 and 1225)
and
CELLECTAR, INC.**

Effective March 31, 2009, Cellectar, Inc., a Wisconsin corporation (formerly known as Cellectar, LLC, a Wisconsin limited liability company), with offices located at 3301 Agriculture Drive, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

Appendix C, Diagnostic Product Milestone No. 4 is hereby amended to read as follows:

4. By March 31, 2010, LICENSEE will either initiate a physician-sponsored IND diagnostic Phase I CLR1404 (previously known as NM404) trial for at least one other cancer type or amend the IND referred to in former Diagnostic Product Milestone No. 2 so as to provide for such a trial for at least one other cancer type. A Phase I trial shall be considered to be "initiated" upon the first administration of CLR1404 to a patient in such a trial.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR CELLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ William R. Clarke
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: William R. Clarke

Typed Name: Kenneth J. Nisbet

Title: Chief Executive Officer

Title: Executive Director UM Technology
Transfer

Date: March 30, 2009

Date: April 2, 2009

**NINTH AMENDMENT TO LICENSE AGREEMENT BETWEEN
THE REGENTS OF THE UNIVERSITY OF MICHIGAN
(File Nos. 0290 and 1225)
and
CELLECTAR, INC.**

Effective March 31, 2010, Cellectar, Inc., a Wisconsin corporation (formerly known as Cellectar, LLC, a Wisconsin limited liability company), with offices located at 3301 Agriculture Drive, Madison, Wisconsin ("LICENSEE"), and the Regents of the University of Michigan, a constitutional corporation of the State of Michigan ("MICHIGAN"), hereby amend their License Agreement of September 4, 2003 as follows:

MICHIGAN hereby acknowledges that the safety and dosimetry data collected and analyzed by LICENSEE during the course of its Phase 1(a) Clinical Trial has shown the uptake of CLR1404 in both prostate and colorectal cancers; that this data has advanced the potential diagnostic imaging applications of CLR1404; and that the collection and analysis of this data satisfies the intent of Diagnostic Product Milestone No. 4 (Appendix C to the License Agreement). Therefore, MICHIGAN considers the requirements of Diagnostic Product Milestone No. 4 to have been fulfilled, and LICENSEE shall have no further obligations under the License Agreement with respect thereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate originals by their duly authorized officers or representatives.

FOR CELLECTAR, LLC

FOR THE REGENTS OF THE
UNIVERSITY OF MICHIGAN

By: /s/ William R. Clarke
(authorized representative)

By: /s/ Kenneth J. Nisbet
(authorized representative)

Typed Name: William R. Clarke

Typed Name: Kenneth J. Nisbet

Title: Chief Executive Officer

Title: Executive Director UM Technology
Transfer

Date: June 3, 2010

Date: April 26, 2010

LEASE

THIS LEASE is entered into this 5th day of September, 2007, by and between **McAllen Properties, LLC**, hereinafter referred to as "Landlord" and **Collectar, LLC**, hereinafter referred to as "Tenant."

WITNESSETH:

1. Leased Premises. Landlord, for and in consideration of the rents to be paid by Tenant, and the conditions, provisions, reservations and stipulations herein contained, does hereby:

(a) Demise, lease and let unto Tenant approximately 16,100 square feet of floor space (measured from the exterior wall of the building to the centerline of the demising walls) (the "Leased Premises") of the building located at 3301 Agriculture Drive, Madison, Wisconsin (the "Building"). (The Building, the land upon which it is situated, and the Common Areas (as defined below) are hereinafter referred to as the "Property.") The Property is shown on the Site Layout Plan attached hereto and made a part hereof as Exhibit A. The Leased Premises are shown on the Floor Plan attached hereto and made a part hereof as Exhibit B.

(b) Grant to Tenant for the term of this Lease a nonexclusive right of its customers, invitees and employees, to use the driveways, walkways and parking areas located on the Property, for purposes of pedestrian and vehicular ingress, egress and parking. Landlord warrants that the parking areas will be sufficient to provide no less than thirty (30) parking stalls for use by Tenant's employees.

2. Term. Tenant shall have and hold the Leased Premises for a three (3) year term commencing from and after the Rent Commencement Date (defined below). The lease year shall be set by reference to the twelve-month period which commences on the Rent Commencement Date.

3. Base Rental. Tenant shall pay to Landlord a base rent equal to \$6.00 per square foot of the Leased Premises, per annum (the "Base Rent"), payable in twelve (12) equal monthly installments of Eight Thousand Fifty Dollars (\$8,050) which monthly installments shall be paid in advance commencing on September 15, 2007 (the "Rent Commencement Date") and continuing on the first day of each and every month thereafter throughout the term. Thereafter, commencing on the second anniversary of the Rent Commencement Date and continuing on each successive one year anniversary thereafter, the Base Rent shall increase to an amount equal to one hundred three percent (103%) of the previous annual Base Rent.

Rent for any partial calendar month during the term of this Lease shall be pro-rated based on the number of days during such period. The rent for the month of September, 2007, shall be due on the Rent Commencement Date.

4. Options to Extend. Tenant shall have the right, at its option, to extend the term of this Lease for seven (7) additional terms of two (2) years each. To effectively exercise each option, Tenant must give written notice to Landlord at least six (6) months prior to the end of the original term, or the extended term, if applicable, and Tenant shall not be in default of its obligations under this Lease at the time the option is exercised and at the end of the original term or extended term, as applicable. If Tenant elects to extend this Lease, all the terms and conditions hereof shall be the same during the extended term(s) except for: (a) the Base Rent provided for under paragraph 3 above, which shall be increased at the beginning of each year of an extended term to an amount equal to one hundred three percent (103%) of the then effective Base Rent, and (b) Tenant shall have no option to extend this Lease beyond the seven (7) additional terms provided for in this paragraph 4.

5. Expandable Square Feet. Tenant agrees to lease and Landlord agrees to lease to Tenant, commencing on the Rent Commencement Date, the adjacent 3,416 square feet of floor space shown on the Floor Plan attached hereto and made a part hereof as Exhibit B, for an additional \$4.00 per square foot. Landlord shall, on the Rent Commencement Date, deliver such adjacent space in a "white-box" condition pursuant to the specifications agreed to by the parties and described in Exhibit C, attached hereto and made a part hereof. The rental rate for the adjacent space includes the taxes, insurance and CAM charges. Tenant will be responsible for heating of this space to prevent the sprinkler system from freezing. In addition, Tenant will pay all utility costs charged to this space. Tenant may at its sole cost build-out this adjacent space with the written approval of Landlord, which Landlord shall not unreasonably withhold, condition, or delay. In the event that Tenant (or any subtenant of Tenant) builds-out this adjacent space, Landlord will provide Tenant with a credit toward the cost of such build-out by either promptly paying to Tenant, or directly paying to Tenant's contractor, the initial Nine Thousand One Hundred Fifty Dollars (\$9,150) of Tenant's (or such subtenant's) expenses toward such build-out. All terms and conditions of this Lease, other than provisions regarding the payment of rents and the build-out of such space, shall apply to the lease of this adjacent space as if it were included within the definition of the Leased Premises; provided, however, that once Tenant has built-out this adjacent space and Tenant's personnel have begun to occupy such space, then the rent for this adjacent space shall be adjusted to the same annual rate per square foot then applicable to the Leased Premises, together with an Allocable Percentage of the Shared Expenses for this adjacent space determined in the same manner as Shared Expenses for the Leased Premises, and all of the foregoing shall be paid in installments due at the same time as the payments of monthly rent and Shared Expenses for the Leased Premises.

6. Repair and Maintenance. Tenant agrees to make and pay for all necessary repairs and for redecorating the Leased Premises (other than the Landlord's Work, defined below) after commencement of the Lease term at its expense and to keep the Leased Premises in as good repair and condition as existed as of completion of the Landlord's Work, including the maintenance, repair and replacement of all fixtures, heating, air-conditioning, plumbing and electrical equipment installed as part of Landlord's Work that service only the Leased Premises, excepting only ordinary wear and tear and those items for which Landlord is responsible as hereafter stated, and further provided that any such fixtures or equipment required to be replaced by Tenant may be replaced with functioning and serviceable used fixtures or equipment that have a remaining useful life consistent with fixtures or equipment that are the same age as the fixtures or equipment being replaced. Landlord shall cause any warranties applicable to these improvements to be transferred to Tenant. Tenant agrees to keep the Leased Premises free of dirt and rubbish, and will provide for prompt removal thereof. If Tenant contracts with a rubbish removal company, and Landlord provides a dumpster enclosure, it is Tenant's responsibility to keep the dumpster within the enclosure at all times. Tenant shall replace or repair any damaged exterior windows or doors of the Leased Premises with materials of the same size and quality. In addition, Tenant shall be responsible for upkeep and the cost of correcting any violations of the applicable governmental laws and regulations (including without limitation, the Americans with Disabilities Act) with respect to the Leased Premises. Landlord shall be responsible for necessary structural repairs and replacement to the roof and foundation of the Building, and for maintenance of those components of the water, plumbing and electrical systems that serve areas of the Building other than the Leased Premises including the Common Areas, excepting those repairs necessitated by damage caused by Tenant or Tenant's invitees. Landlord shall also be responsible for all damage caused by the negligent, willful or intentional misconduct of the Landlord or Landlord's agents. Landlord shall also perform such maintenance and make such replacements and repairs to the Common Areas (defined below) as are necessary to maintain the same in good, clean, and safe condition.

7. Electricity, Gas, Water and Sewer; Telephone. Landlord represents and warrants that all "Utilities" to the Building, consisting of electricity, gas, sewer and water, as well as heating and cooling, shall be metered separately from those to the Leased Premises. Tenant shall pay such of the Utilities as are metered to the Leased Premises to the provider as billed. Tenant shall be responsible for all telephone charges and telephone expenses incurred in respect to the Leased Premises.

8. Shared Expenses. The Leased Premises is part of the Building, and the following sub-paragraphs (a) [taxes], (b) [special assessments], (c) [insurance], and (d) [common area maintenance] (sub-paragraphs (a)-(d) collectively, the "Shared Expenses") make reference to an "Allocation Percentage" whereby some of the expenses covered by such sub-paragraphs are allocated to the Leased Premises. The parties agree that the Allocation Percentage shall be determined by the provider of the items being allocated in cases where such provider in the ordinary course determines charges separately for the Leased Premises; in all other cases, the Allocation Percentage shall be determined on a square-foot basis. The parties agree that the entire Building comprises approximately 45,335 square feet, and the Leased Premises comprises approximately 16,100 square feet. Therefore, Tenant's Allocation Percentage for the Leased Premises equals 35.51%.

The total amount of Shared Expenses shall be estimated in advance by Landlord for each calendar year. Tenant shall timely pay as Additional Rent the then-current assessment of the Shared Expenses allocable to the Leased Premises, as determined by the Allocation Percentage. For the purposes of calculating the initial year's assessment, the assessment is \$2.00/square foot. Tenant shall timely pay the then-current assessment until notified of any adjusted assessment. Such assessment shall be paid by Tenant each and every month in installments of one twelfth (1/12) of the assessment. Within ninety (90) days of the conclusion of each calendar year, Landlord shall account for the amount of actual Shared Expenses for that calendar year, and any assessments collected by Landlord in excess of the actual amount of the Shared Expenses shall be credited to Tenant; and any shortage assessed to Tenant shall become due within (10) days of notification. If the term of this Lease commences or ends at any time other than the first day of a calendar year, Tenant shall be responsible for a prorated portion of that calendar year's estimated Shared Expenses, said pro-rata to be on a daily basis.

(a) Taxes. Tenant shall each and every month pay, as Additional Rent, an assessment of the estimated real estate taxes levied against the Property which is allocable to Tenant as determined by the Allocation Percentage. Real estate taxes shall be estimated on the basis of the real estate taxes for the next preceding tax year.

(b) Special Assessments. If Landlord receives a municipal special assessment relative to the Property, Tenant shall pay to Landlord that part of the special assessment which is allocable to Tenant according to the Allocation Percentage. Tenant shall either pay its allocable share of special assessments in full within thirty (30) days of the date of notice from Landlord, or if offered by the assessing authorities, Tenant may, at its option, pay its allocable portion of a special assessment on the installment basis, together with applicable interest (charged by the assessing authority) attributable to said portion, as said installments become due and prior to delinquency, provided that any balance owing of Tenant's allocable share on the first day of the last month of the Lease term shall then be due and payable in full.

(c) Insurance. Tenant shall keep in effect, at its sole expense, a comprehensive general liability policy or policies, naming Landlord as an additional insured, covering Tenant's operations in the Leased Premises and providing coverage for bodily injury and property damage sustained in, or upon the Leased Premises, with a limit of at least One Million Dollars (\$1,000,000) per occurrence. Tenant shall also maintain fire insurance with extended coverage covering all of Tenant's equipment, fixtures, merchandise, and other property located within the Leased Premises, including the interior decorating installed by Tenant or constituting Tenant's Work, in an amount equal to one hundred percent (100%) of its replacement value. Evidence of such insurance shall be provided by Tenant to Landlord prior to Tenant's occupancy of the Leased Premises, and from time to time thereafter, as Landlord may request. Landlord shall maintain fire and extended coverage insurance covering the Building, including the improvements to and (if any) equipment in the Leased Premises that remain the property of Landlord upon termination of the Lease, or that would be required to be removed by Tenant, as described on Exhibit E, in an amount equal to one hundred percent (100%) of the replacement value of the Building and such improvements and equipment, with such coverage as it deems desirable. Any insurance required herein to be maintained by a party shall name the other party as an additional insured, as their respective interests may appear. Tenant agrees to pay, as Additional Rent, its allocable portion, according to the Allocation Percentage, of any premium rates of insurance carried by Landlord on the Building.

Each party hereby releases the other from liability it may have on account of any loss to the Leased Premises or Property or contents of either due to fire or any peril included in the coverage of any applicable fire and extended coverage and material damage insurance, however caused, including such losses as may be due to the negligence of the other party, its agents or employees, but only to the extent of any amount recovered by reason of such insurance, and each party hereby waives any right of subrogation which might otherwise exist in or accrue to such party on account thereof, provided that such release of liability and waiver of the right of subrogation shall not be operative in any case where the effect thereof is to invalidate such insurance coverage under applicable state law (or increase the cost thereof, unless the other party reimburses the insured for any cost increase, or in the case of a cost increase to Landlord, the Tenant's Allocation Percentage of the cost increase). If either party fails to maintain in force any insurance required by this Lease to be carried by it, then for purposes of this waiver of subrogation it shall be deemed to have been fully insured and to have recovered the entire amount of its loss. All property insurance required to be maintained under this sub-paragraph shall include a waiver of subrogation clause.

(d) Common Area Maintenance and General Administrative Expense. Tenant shall pay to Landlord, as Additional Rent, its allocable portion, as determined by the Allocation Percentage, of all costs and expenses incurred by Landlord in operating and maintaining the "Common Areas," which term shall include the parking areas, driveways, sidewalks, walkways, and all other areas and facilities which are available for use by Property occupants, their customers, invitees and employees. Such costs and expenses shall include, but not be limited to snow removal, landscaping, janitorial service, parking lot and walkway lighting, security patrol services, and fire protection system maintenance with respect to the Common Areas. Such expenses shall also include the cost of keeping all portions of the Common Areas in good repair and condition, excluding those structural repairs which are described in this Lease as Landlord's specific responsibility.

Tenant further agrees to pay to Landlord, as Additional Rent, a General Administrative Expense equal to five percent (5%) of Tenant's proportionate share of the foregoing Common Area Maintenance costs.

Notwithstanding the foregoing, the following expenses shall not be reimbursable by Tenant to Landlord in connection with Landlord's maintenance of the Common Areas: (i) costs of capital improvements to the Leased Premises or the Building or Property; (ii) any cost or expenditure (or portion thereof) for which Landlord is directly reimbursed, whether by insurance proceeds (or which would have been paid if Landlord carried the insurance required herein, or for which Landlord would have been paid but for Landlord's failure to file a claim against the insurance required herein to be carried by Landlord) or otherwise; (iii) costs of correcting any violations of applicable governmental laws and regulations (including, without limitation, the Americans with Disabilities Act) with respect to the Building other than the Leased Premises; (iv) any costs incurred due to the negligent acts or omissions or willful or intentional misconduct of the Landlord, its agents, or their respective employees; (v) any amounts paid to Landlord or to subsidiaries or affiliates of Landlord for goods supplied to the Property or services in the Property to the extent the same exceed the costs of such goods or services rendered by unaffiliated third parties on a competitive basis; (vi) expenditures for repairs or maintenance which are covered by warranties, guarantees or service contracts; (vii) structural repairs and replacements of the Building that are in the nature of capital improvements (including the roof, the foundation, and the exterior of the Building); or (viii) any items of expense commonly known and understood to be carrying charges.

9. Alterations.

(a) Tenant's Work. Tenant shall, at its own cost, provide the build-out of the Leased Premises beyond the Landlord's Work ("Tenant's Work"). Tenant shall provide Landlord with plans for the alterations, additions and improvements that constitute Tenant's Work and obtain Landlord's approval thereof, which approval shall not be unreasonably withheld, conditioned or delayed, prior to commencing the construction and/or installation of such alterations, additions and improvements.

(b) Landlord's Work. Landlord shall be responsible for constructing and finishing the Leased Premises so as to put the Leased Premises in a "white-box" condition pursuant to the specifications agreed to by the parties and described in Exhibit D, attached hereto and made a part hereof ("Landlord's Work"). Landlord's Work shall be completed on or before August 31, 2007. In addition, Landlord shall provide Tenant with a credit toward the cost of Tenant's Work by either promptly reimbursing Tenant, or directly paying to Tenant's contractor, the initial Forty Six Thousand One Hundred Seventy Dollars (\$46,170) of Tenant's expenses that are part of Tenant's Work.

(c) Additional Improvements. Tenant may, after the Rent Commencement Date and at its own cost, make additional improvements to or remodel the existing improvements of the Leased Premises, provided that Landlord gives written consent to such work, which consent Landlord shall not unreasonably withhold, condition or delay.

10. Roof Rights. At no cost to Tenant, Tenant shall have the right to use the roof for installation of its own communications devices. Tenant, at Tenant's sole cost, shall repair any damage caused by any roof penetration at the installation or removal of such devices. Tenant shall obtain Landlord's reasonable approval in advance of such installation of any communication devices.

11. Removal of Improvements. All trade fixtures (including built-in fixtures that are removable), equipment, furniture and furnishings installed in or brought upon the Leased Premises by Tenant (including, without limitation, any radioactive materials isolator installed by Tenant), whether or not affixed to the Property, and paid for by Tenant, shall remain the property of Tenant and may be removed by Tenant upon expiration of this Lease or its earlier termination provided that Tenant shall repair any and all damage caused by such removal. Any trade fixtures, equipment, furniture and furnishings not so removed at or prior to the expiration or earlier termination of this Lease shall become the property of Landlord unless Landlord elects to require their removal, in which case Tenant shall promptly remove such items and restore the Leased Premises to its prior condition. Within a one month period after the expiration of this Lease or its earlier termination, Tenant shall, at Tenant's cost, remove all alterations, additions, and improvements to the Leased Premises described on Exhibit E and shall further install or cause to be retained in the Leased Premises those items of improvements and equipment described on Exhibit E, provided, however, that Tenant's cost, at commercially reasonable rates, to provide and have a contractor perform the foregoing shall not exceed Fifty-five Thousand Dollars (\$55,000) (the "Capped Amount"), and to the extent that the cost to perform the foregoing exceeds the Capped Amount, and Landlord desires that work at a cost beyond the Capped Amount be performed, then Landlord shall pay any additional amounts. In the event that Tenant continues to occupy the Leased Premises for the purpose of removing alterations, improvements and additions and installing improvements and equipment as provided for in the preceding sentence, Tenant shall be deemed to be occupying the Leased Premises under a month-to-month tenancy (and not as a hold-over Tenant under paragraph 24 of this Lease) for such additional period for the limited purpose of effecting such removal and installation, and shall continue to have all of the obligations under this Lease, including payment of rent, during such period. For the purpose of securing Tenant's performance of its obligation to remove alterations, improvements and additions and to install improvements and equipment as provided for in this paragraph, Tenant shall, by the Rent Commencement Date, either deposit the Capped Amount into an escrow account to be administered pursuant to an escrow agreement acceptable to Landlord and Tenant or provide other collateral reasonably acceptable to Landlord in the form of a cash deposit, a letter of credit or a cash equivalent of the Capped Amount.

12. Space Planning. Landlord shall provide, at its cost and expense, the basic space planning services set forth on Exhibit F. If Tenant retains its own space planner, Tenant will be responsible for the expense of such services.

13. Signage. On or before December 1, 2007, Landlord shall provide shared exterior monument signage. Tenant agrees to pay all costs associated with the application, replacement and upkeep of Tenant's business name on the shared exterior monument signage. The exterior monument signage will be subject to Landlord's reasonable approval. Tenant agrees that no other signs or advertising will be attached to or erected upon the Building or Property without City of Madison approval and the written approval of Landlord, which approval will not unreasonably be withheld, conditioned or delayed.

14. Keyed Lock. Upon the Rent Commencement Date, Landlord shall provide a newly keyed lock for the Leased Premises. This lock will be set up for the Landlord's system and must not be changed. Should Tenant require a change to the keying system, Landlord will arrange to make such change, at Tenant's own expense.

15. Prior Access. At Tenant's own risk, Landlord shall provide Tenant with prior access to the Leased Premises during construction of Landlord's Work for installation of those portions of Tenant's Work that can be made or completed prior to or concurrently with completion of Landlord's Work, provided that Tenant's access shall not interfere with timely completion of Landlord's Work.

16. Permeation of Offensive Odors and Liquids. Tenant shall maintain the Leased Premises in such a manner that odors of an offensive nature and/or liquids from the Leased Premises will not, in any manner, permeate to other areas of the Building or Property. Tenant shall at its own expense install and maintain exhaust, filtration, or other air management systems as are necessary to prevent permeation of offensive odors and/or liquids from the Leased Premises.

17. Noise. Tenant shall not cause upon the Leased Premises, unreasonable levels of noise which may disturb neighbors or other tenants, taking into consideration the commercial nature of the Building and the surrounding area. Further, Tenant agrees to comply with all City of Madison noise level ordinances.

18. Hazardous Materials. Tenant agrees and covenants that any treatment, storage, or disposal of Environmentally Hazardous Materials by Tenant or its agents on or about the Leased Premises shall fully comply with all laws, regulations, ordinances, and requirements concerning Environmentally Hazardous Materials. For the Purposes hereof, the term "Environmentally Hazardous Materials" shall include, without limitation, any material, waste or substance which is included within the definitions of "hazardous substances," "hazardous materials," "toxic substances," or "hazardous wastes" in or pursuant to any Environmental Laws, or subject to regulation under any Environmental Laws. The term "Environmental Laws" shall include all Laws pertaining to Hazardous Materials or the environment, including, but not limited to each of the following, as enacted as of the date hereof or as hereafter amended: the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. §9601 et seq.; the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §9601 et seq.; the Toxic Substance Control Act, 15 U.S.C. §2601 et seq.; the Water Pollution Control Act (also known as the Clean Water Act), 33 U.S.C. §1251 et seq.; the Clean Air Act, 42 U.S.C. §7401 et seq.; and the Hazardous Materials Transportation Act of 1994, 49 U.S.C. §5101 et seq.

Landlord shall indemnify Tenant from any claims, liabilities or damages arising out of Environmentally Hazardous Materials existing in, on, around or below the Leased Premises, Building and Property, except for claims, liabilities or damages arising out of Environmentally Hazardous Materials introduced by Tenant. Tenant shall indemnify Landlord from any claims arising from Tenant's use of such materials that is not in compliance with all governmental codes and restrictions. Tenant shall also provide for insurance or other method to cover the cost of any cleanup of radiation or other hazardous material upon termination of the Lease.

18.5 Radioactive Materials. Landlord acknowledges that Tenant will use radioactive materials in connection with its occupancy and use of the Leased Premises. Tenant agrees that:

(a) any radioactive materials (other than sealed calibration sources of radioactive materials used to calibrate instruments) used or brought into the Leased Premises by Tenant shall have a half-life of seventy-five (75) days or less;

(b) Tenant shall confine all manufacturing activities involving radioactive materials to a radioactive materials isolator that it shall install and maintain within the Leased Premises;

(c) Tenant shall comply with all applicable laws and regulations (the "Regulations") of the State of Wisconsin that would govern Tenant's possession, use and disposal of radioactive materials on the Leased Premises, and shall obtain all licensing required in connection therewith;

(d) Tenant shall make available to Landlord, prior to the Rent Commencement Date, a copy of its radiation plan required by the Regulations; and Landlord understands and agrees that such plan shall only be available for inspection (but not copying) by it, and Landlord further agrees that it shall keep the contents of the plan confidential;

(e) Tenant shall make available to Landlord upon Landlord's request, but no more frequently than once every six (6) months, copies of all reports, surveys, monitoring results and other information that Tenant is required to maintain in its possession or deliver to any regulatory agency pursuant to the Regulations; and Landlord understands and agrees that such information shall only be available for inspection (but not copying) by it, and Landlord further agrees that it shall keep all such information made available to it confidential, except to the extent that disclosure of such information is required in connection with the enforcement of any provisions of this Lease; and

(f) Prior to the expiration of the term of this Lease, or upon any termination of this Lease by Landlord as a result of a default by Tenant, Tenant shall decommission the Leased Premises, in accordance with the Regulations. If Tenant is unable to complete the decommissioning process prior to expiration of the term of the Lease, Tenant shall be deemed to be occupying the Leased Premises under a month-to-month tenancy (and not as a hold-over Tenant under paragraph 24 of this Lease) for such additional time period as may be necessary to complete the process, and shall continue to have all of the obligations under this Lease, including payment of rent, during such period.

19. Use of Premises. Tenant covenants and agrees that it will comply with all lawful requirements of any governmental health or safety agency or authority, police and fire departments and all other governmental authorities, respecting the use of the Leased Premises and the business activities conducted therein. Tenant agrees that it will not permit anything to be done, used or suffered in or upon the Leased Premises which shall invalidate any insurance or materially increase the premium of any insurance carried by Landlord on the Building. In the event that Landlord's premiums for any insurance coverage on the Building are increased over and above the normal rates based on the location and type of the Building solely by reason of Tenant's operations, Tenant agrees to pay the full amount of such increases(s), in addition to any other payments required herein.

20. Landlord's Right to View Premises and Install "For Sale" Signs. Landlord has the right to enter the Leased Premises at any reasonable time upon reasonable advance notice to inspect the condition of the Leased Premises and/or make repairs, or to exhibit the Leased Premises to prospective purchasers, mortgagors, or lessees, provided that Landlord does not unreasonably interfere with the orderly business of Tenant. Landlord may during the last six (6) months of the Lease term (unless Tenant has exercised its option to extend) place on the Property a sign advertising the Leased Premises for sale or for lease.

21. Unavoidable Delays. Neither Landlord nor Tenant shall be liable for any delay in performance of any covenant or term of this Lease, except the payment of rent or any other sum to be paid hereunder, caused by strikes, riots, acts of God, national emergencies, acts of a public enemy, civil insurrection, difficulty in obtaining materials, or any other causes beyond its control.

22. Condition Upon Termination. Upon expiration or termination of this Lease, for any reason, Tenant shall peacefully return the Leased Premises to Landlord in the same condition as the Leased Premises was in upon completion of the Landlord's Work and Tenant's Work, reasonable wear and tear excepted, provided that the removal of any improvements by Tenant shall be governed by the provisions of paragraph 11 of this Lease. In the event Tenant fails to return the Leased Premises to the required condition upon termination of this Lease, Tenant shall fully indemnify and hold harmless Landlord from all losses, costs, damages, and expenses incurred or suffered by Landlord as a result of any undertaking by Landlord to return the Leased Premises to the required condition.

23. Zoning and Regulatory Compliance. Landlord warrants to Tenant that the property on which the Leased Premises is located is zoned for Tenant's use as administrative offices and a laboratory and manufacturing facility that involves the use of radioactive materials. Landlord further warrants that at the time of the Rent Commencement Date, the Building and its current and anticipated use is in compliance with all applicable governmental laws and regulations (including without limitation, the Americans with Disabilities Act).

24. Holdover. If Tenant remains in possession of the Leased Premises after the termination of this Lease, Tenant shall be deemed to be occupying the Leased Premises as a lessee on a month-to-month basis. Except as otherwise provided in this Lease, (a) the month-to-month tenancy arising under this paragraph shall be on the same terms and conditions as those described in this Lease except that the Base Rent to be paid by Tenant to Landlord shall be One Hundred Twenty-five percent (125%) of the monthly Base Rent payable by Tenant for the last month of the term of this Lease, and (b) nothing in this paragraph shall operate to prevent Landlord from removing Tenant from the Leased Premises upon expiration of this Lease.

25. Security Deposit. Tenant shall deposit with Landlord upon execution of this Lease a Security Deposit equal to the first month's Base Rent and estimated Shared Expenses (\$11,872), to be held as security for the performance by Tenant of its obligations under this Lease. If Tenant defaults in the performance of any of its obligations under this Lease (subject to any applicable notice and cure periods), Landlord may, without prejudice to any other remedy, use the Security Deposit to the extent necessary to make good any arrearages in rent and any other sum for which Tenant is in default and any other damage, injury, expense, or liability caused to Landlord by the default. Landlord shall return the remaining balance of the Security Deposit to Tenant within sixty (60) days after the later to occur of (1) the termination or expiration of this Lease or (2) surrender by Tenant of possession of the Leased Premises to Landlord in accordance with this Lease.

26. Bankruptcy or Default. Tenant agrees that:

(a) if an execution or other process shall be levied against the interest of the Tenant in this Lease, or if a petition in bankruptcy is filed by or against Tenant in any court of competent jurisdiction (and such petition is not dismissed or discharged within ninety (90) days after the date it was filed), or if Tenant makes an assignment for the benefit of creditors, or

(b) if Tenant shall fail to pay the rent, or any other amounts due from Tenant to Landlord under this Lease, at the times above stated, or shall use the Leased Premises or any part thereof contrary to the conditions hereof or shall willfully or maliciously do injury to the Leased Premises, and if Tenant shall fail to cure such default, breach or violation within ten (10) days in the case of a monetary default or thirty (30) days in the case of any other default, breach or violation (or such longer period of time as shall be reasonably required to cure a non-monetary default provided Tenant is diligently pursuing such cure) after receiving written notice thereof from Landlord,

Landlord shall have the right, at its option, to re-enter the Leased Premises, but without prejudice to any remedies which Landlord might otherwise have for arrears of rent or any breach of Tenant's covenants herein contained, and Landlord may, as agent for Tenant re-let the Leased Premises and hold Tenant liable for the difference between rents and payments that would have been payable during the remainder of the term of this Lease, excluding unexercised extension terms, less any replacement rent Landlord may have received as a result of re-letting the Leased Premises. No re-entry or taking possession of the Leased Premises by Landlord shall be construed as an election on Landlord's part to terminate this Lease unless a written notice of such intention be given to Tenant or unless the termination of this Lease be decreed by a court of competent jurisdiction. Landlord agrees that if Tenant defaults, Landlord shall use good faith, reasonable efforts to mitigate its damages arising out of such default.

27. Legal Costs. If any action or proceeding is brought by Landlord or Tenant to interpret the provisions hereof or to enforce either party's respective rights under this Lease, the prevailing party shall be entitled to recover from the unsuccessful party therein, in addition to all other remedies, all costs incurred by the prevailing party in such action or proceeding, including reasonable attorneys' fees.

28. Delinquent Amounts to Bear Interest. Any rent or such other sums, if any, required to be paid by Tenant to Landlord, or by Landlord to Tenant, pursuant to the terms of this Lease, which are not paid within five (5) days of their becoming due and owing, shall bear interest at the rate of eighteen percent (18%) per annum commencing on the fifth day after such amount is due and continuing until such amount is paid. The payment of such interest shall not excuse or cure any default by either party under this Lease.

29. Subordination. Tenant agrees to subordinate its leasehold interest to the lien of any mortgage Landlord desires to grant in respect to the Leased Premises or the Building, provided that each mortgagee shall agree in writing at the time such subordination is given that so long as Tenant pays the Base Rent and its other financial obligations under this Lease and otherwise performs its duties and obligations under this Lease, or shall rectify any failure within the time and the manner provided in this Lease, then Tenant shall be entitled to the full use and enjoyment of the Leased Premises pursuant to the terms and conditions of this Lease for the initial term of this Lease and each renewal term, as applicable. Tenant shall, upon request by Landlord, execute, acknowledge and deliver to Landlord's mortgagee any instrument which may be necessary to effect Tenant's subordination in accordance and upon the terms provided herein.

30. Casualty. In the event that the Building is damaged by fire or other casualty, the same shall be restored by Landlord, at its own expense, with reasonable dispatch. In the event the cost of repairs and restoration exceeds fifty percent (50%) of the full insurable value of the Leased Premises, then either party may terminate this Lease as of the date of destruction or damage by providing written notice to the other party within fifteen (15) days after the date of destruction or damage. Upon the giving of such notice, this Lease shall be terminated and cancelled and the Leased Premises surrendered by Tenant, and any advance rentals which may have been paid by Tenant shall be re-paid to Tenant from and after the date of such damage. If this Lease is not so terminated, Landlord shall restore the structure and exterior of the Building and the Leased Premises and the interior of the Leased Premises (to the extent of the additions, alterations and improvements that would be required to be surrendered to Landlord upon termination of this Lease or that would be required to be removed by Tenant, as described on Exhibit E), at its own expense, within a reasonable time after such destruction or damage. All rents payable to Landlord shall abate during the period of any restoration in proportion to the area of the Leased Premises rendered unusable by reason of such casualty. In the event that the damage or loss to the Leased Premises is a result of Tenant's negligence, Tenant shall be responsible for the deductible portion of any insurance proceeds and the rent hereunder shall not abate.

In the event that any restoration of the Leased Premises required to be performed by Landlord under this paragraph 30 is not complete within one hundred twenty (120) days from the date of destruction or damage, Tenant may, at its option and upon ten (10) days' written notice to Landlord, terminate this Lease. Landlord shall not be liable or responsible, and the one hundred twenty (120)-day period mentioned in the preceding sentence shall be extended, for any delays in repairing or rebuilding due to war, strikes, labor unrest or activities, riots, government action, acts of God, inclement weather or any other cause beyond Landlord's control.

31. Condemnation. In the event the Leased Premises or any part thereof or any portion of the Property shall be taken or condemned for public use by public authorities or conveyed in lieu thereof, so that after such taking, condemnation or conveyance, Tenant's operations shall be substantially impaired, or, if the Leased Premises shall be structurally altered and cannot be rebuilt by Landlord within one hundred twenty (120) days from the date of the taking, condemnation or conveyance, then Tenant shall have the right to terminate this Lease upon ten (10) days' written notice, which notice must be given within sixty (60) days after such taking, condemnation or conveyance in case of substantial impairment of Tenant's operations. In the event any part of the Leased Premises shall be taken or condemned for public use by public authorities or conveyed in lieu thereof, but after such taking, condemnation or conveyance, Tenant's operations are not substantially impaired, then this Lease shall continue in full force and effect, except that Tenant shall be entitled to equitable adjustment of rent to reflect the reduction of the Leased Premises due to such taking, condemnation or conveyance. Any award for the Leased Premises shall belong to Landlord except Tenant shall not be precluded from receiving a separate leasehold award for the value of the leasehold interest, its leasehold improvements, fixtures and relocation expenses.

32. Hold Harmless. Landlord agrees to and hereby does indemnify and hold harmless Tenant from and against any loss, damage or liability occasioned by or resulting from any default hereunder, or any tortious or negligent act on the part of Landlord, its agents or employees on or about the Property. Tenant agrees to and hereby does indemnify and hold harmless Landlord from and against any loss, damage or liability occasioned by or resulting from any default hereunder, or any tortious or negligent act on the part of Tenant, its agents or employees on or about the Property. These provisions shall have no effect to the extent the indemnitee is reimbursed or indemnified for such loss, damage or liability by an insurance recovery, or to the extent the indemnitee would have been reimbursed or indemnified for such loss, damage or liability by an insurance recovery if the indemnitee had maintained in place such insurance coverage as is required by this Lease.

33. Right of Tenant to Quiet Enjoyment. Landlord covenants that Tenant, upon performing all of the covenants and observing all of the conditions herein contained, shall and may peacefully and quietly have, hold and enjoy the Leased Premises during the term hereof and any extended term. Landlord represents and warrants that, as of the date hereof, Landlord holds title to the Property and the Leased Premises in fee simple absolute, free and clear of any lien or encumbrance whatsoever.

34. Notice. Whenever notice is permitted or required to be given hereunder by any party to any other party, the same shall be in writing and shall be deemed given and received when delivered personally or when deposited postage prepaid in the United States mails, Certified Mail, Return Receipt requested, addressed to the following:

IF TO LANDLORD:

| | |
|---------|-----------------------------|
| Name | McAllen Properties, LLC |
| Address | 2695 Gaston Rd. |
| Address | Cottage Grove, WI 53527 |
| Phone | 608 345-4470 |
| Fax | 608 839-8501 |
| E-mail | kerry@mcallenproperties.com |
| Fed. ID | 39-1948522 |

IF TO TENANT:

| | |
|---------|-----------------------|
| Name | Collectar, LLC |
| Address | 545 Science Drive |
| Address | Madison, WI 53711 |
| Phone | 608 441-8120 |
| Fax | 608 441-8121 |
| E-mail | bclarke@collectar.com |
| Fed. ID | 39-1997327 |

or such other name and address as Landlord or Tenant may hereafter notify the other in writing.

35. Assignment. Tenant shall not, either voluntarily or by operation of law, sell, assign, hypothecate or transfer this Lease or sublet the Leased Premises or any part thereof or permit the Leased Premises or any portion thereof to be used or occupied by any other person, firm or corporation, without first obtaining the written consent of Landlord, in each instance, which consent shall not unreasonably be withheld, conditioned or delayed. In the event such consent is given, Tenant shall remain liable to Landlord for the payment of rent and the performance of all other obligations of Tenant hereunder for the remainder of the term of this Lease, but not including any renewal term. Tenant shall have the right, with notification to Landlord, to sublease any portion of the premises to an Affiliate under the same terms of this Lease and any such sublease shall not relieve Tenant from any liability of this Lease.

Any transfer of this Lease by merger, reorganization, recapitalization, consolidation, acquisition of Tenant or Tenant's assets by another entity, conversion of Tenant to a corporate entity form, liquidation, or any change of the ownership of its outstanding voting equity, shall constitute an assignment for the purposes of the foregoing paragraph unless the collective holders of Tenant's voting equity prior to such event control at least a majority of the voting equity of Tenant or its successor after such event. Landlord's consent shall not unreasonably be withheld, conditioned or delayed following any such event that constitutes an assignment, provided the net worth and creditworthiness of the surviving successor entity shall, in Landlord's reasonable opinion, be at least as favorable as Tenant's net worth and creditworthiness at the time of the proposed assignment and the nature of the surviving successor entity's business history, conditions and prospects, type of business and the compatibility of all the foregoing with the other lessees shall be reasonably acceptable to Landlord.

So long as no default shall exist on the part of Tenant, any net rentals collected by Tenant by virtue of an assignment or subletting consented to by Landlord over and above the rentals due from Tenant under the provisions of this Lease shall be shared equally between Tenant and Landlord.

36. Estoppel Certificates. At any time from time to time, Landlord or Tenant within twenty (20) days of the date specified in a request by either party, shall execute, acknowledge and deliver to the requesting entity, or to any other person or entity specified by the other, a certificate that this Lease is in full force and effect; that this Lease has not been amended or modified in any way, or identifying any such amendments or modifications; that there are then existing no known set-offs or defenses against the enforcement of any terms or conditions contained herein, or if such set-offs or defenses are known, specifying the same; that there are no existing defaults hereunder to the knowledge of the party executing such certificate, or specifying the nature of known defaults, if any; and the date to which the rental and other charges hereunder have been paid, and the amounts of each.

37. Governing Law. This Lease shall be governed by and construed in accordance with the laws of the State of Wisconsin.

38. Assigns. This Lease shall bind and inure to the benefit of the parties hereto, their respective heirs, representatives and assigns.

39. No Waiver. Failure of either party to exercise its rights in connection with any breach or violation of any term, covenant or condition herein stated shall not be deemed to be a waiver of such term, covenant or condition or any subsequent breach of the same or any other term, covenant or condition contained in this Lease.

IN WITNESS WHEREOF, the parties hereto set their hands and seals on the day and year first above written.

LANDLORD:

McALLEN PROPERTIES, LLC

WITNESS:

By: /s/ Jamey Weichert
Print: Jamey Weichert

By: /s/ Kerry McAllen
Print: Kerry McAllen
Title: Member

TENANT:

CELLECTAR, LLC

WITNESS:

By: /s/ Jamey Weichert
Print: Jamey Weichert

By: /s/ William R. Clarke
Print: William R. Clarke
Title: Chief Executive Officer

EXHIBIT A

See attached.

EXHIBIT B

See attached.

EXHIBIT B

**RUEDEBUSCH
DEVELOPMENT &
CONSTRUCTION**
1111 W. WISCONSIN ST. SUITE 200
MADISON, WISCONSIN 53706
TEL: 608.261.1111 FAX: 608.261.1112

PROJECT NAME
COLLECTOR
5851 AGRICULTURE DR.
MADISON, WISCONSIN

SHEET TITLE
FLOOR PLAN

DATE 09-17-09
PROJECT NUMBER 09-17-09
SCALE 1/8" = 1'-0"
DESIGNED BY A. WILSON
CHECKED BY S. WILSON

SHEET NUMBER
EXHIBIT B

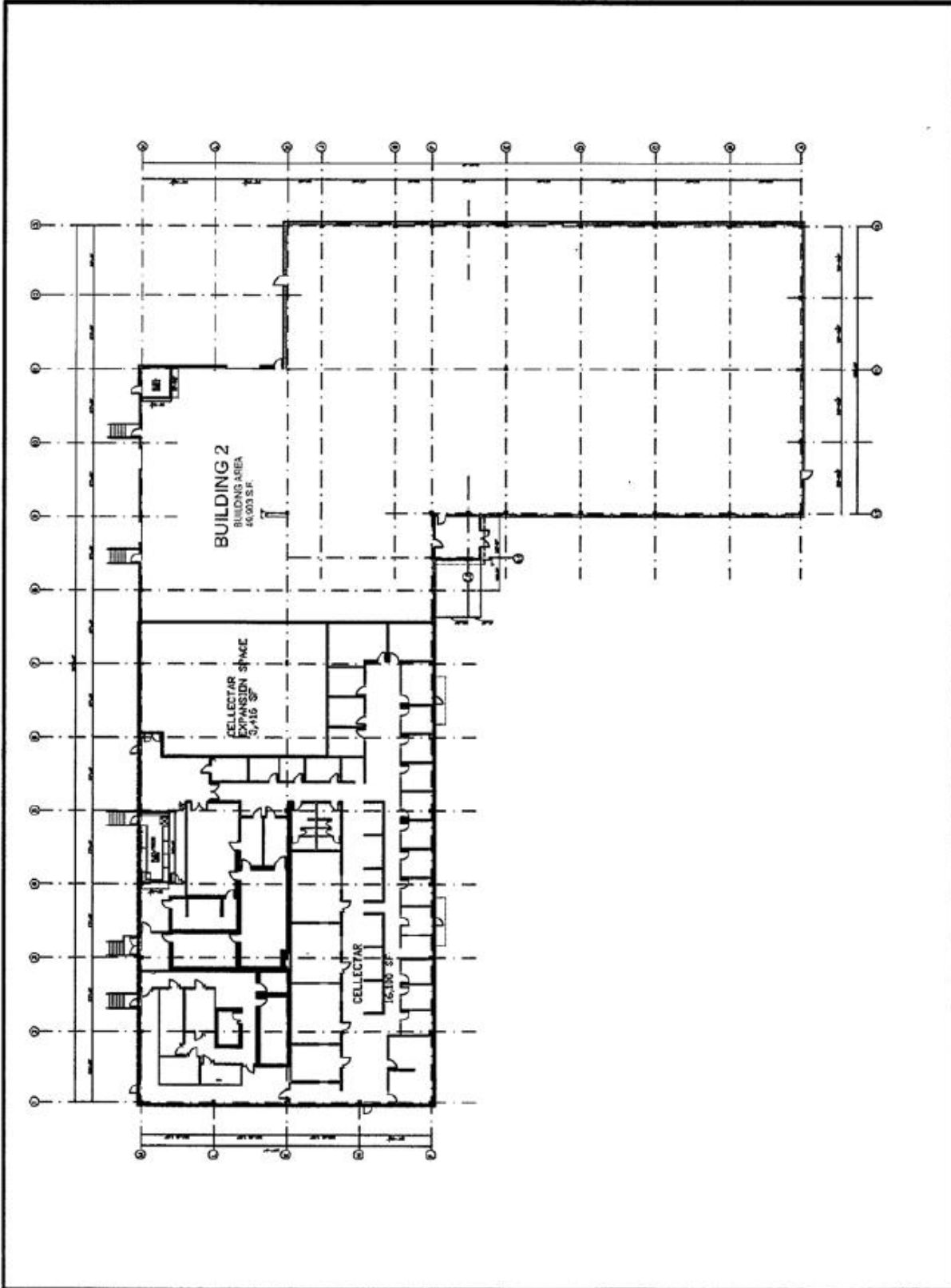


EXHIBIT C

“White-Box” Specifications for the Leased Premises

1. 5” thick concrete slab.
2. Insulation, vapor barrier, and fire-taped drywall on exterior walls and demising walls.
3. All utility lines necessary to provide services to the Leased Premises.

EXHIBIT D

“White-Box Specifications for the Adjacent Space”

1. One 200 amp 120/208 volt electrical panel with a 75 KVA transformer.
2. 5” thick concrete slab.
3. Six (6) 400 watt high-bay light fixtures (Tenant will receive a credit of \$350 each for lights that are not wanted).
4. One gas-fired unit heater with associated gas piping (metered from Tenant’s main space gas meter).
5. Insulation, vapor barrier, and fire-taped drywall on exterior walls and demising walls.
6. Two ceiling fans with speed controls.
7. 10 duplex receptacles around perimeter walls.
8. All utility lines necessary to provide services to the Adjacent Space.

EXHIBIT E

Alteration, Additions and Improvements

Tenant shall remove all interior walls in the cross-hatched area shown on Exhibit E-1 and the surface of all damaged concrete flooring shown in such cross-hatched area and shall replace all such concrete flooring that is removed with new concrete flooring of equivalent thickness to the flooring that was removed.

In addition, Tenant shall install the following in such cross-hatched area:

1. One 400 watt high-bay light fixture per 600 square feet of space in the Leased Premises.
2. One gas-fired unit heater.

EXHIBIT E-1

See attached.

EXHIBIT E1

**RUEDEBUSCH
DEVELOPMENT &
CONSTRUCTION**
1000 W. WISCONSIN ST. SUITE 200
MILWAUKEE, WI 53233
TEL: 414.224.1100 FAX: 414.224.1101

PROJECT NAME
COLLECTOR
3001 AGRICULTURE DR
MADISON, WISCONSIN

SHEET TITLE
ENLARGED FLOOR PLAN

DATE 08-17-07
BY J. H. H. / J. H. H.
SCALE AS SHOWN
PROJECT NUMBER 07-17-07

DATE 08-17-07
BY J. H. H. / J. H. H.
SCALE AS SHOWN
PROJECT NUMBER 07-17-07

SHEET NUMBER
EXHIBIT E1

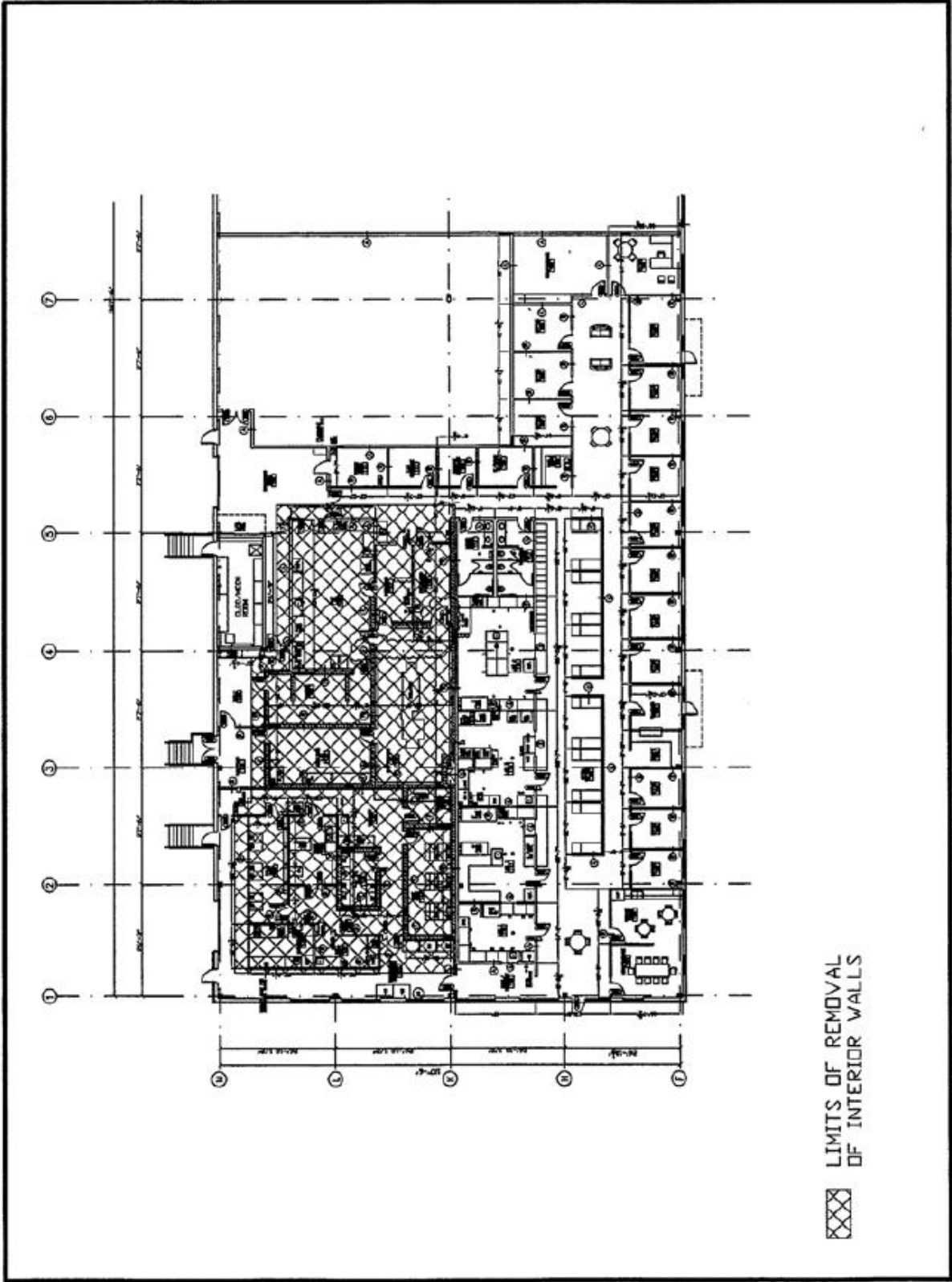


EXHIBIT F

Planning Services

Landlord shall provide Tenant with basic office/warehouse space planning services consisting of ten (10) hours of architectural/engineering drafting time at \$85.00 per hour.

LEASE EXTENSION AGREEMENT

This Agreement is entered into between McAllen Properties, LLC ("Landlord") and Collectar, Inc., formerly Collectar, LLC ("Tenant").

WHEREAS, Landlord and Tenant are parties to a certain Lease entered into as of September 5, 2007 (the "Lease") for the premises described therein; and

WHEREAS, Tenant holds a Certificate of Deposit in the original principal amount of Fifty-Five Thousand Dollars (\$55,000) (the "CD"), acquired for the purpose of securing Tenant's performance of certain work upon termination of the Lease, as provided for in paragraph 11 of the Lease; and

WHEREAS, Tenant has not exercised its option to extend the term of the Lease, and but for this Agreement, the Lease would otherwise expire on September 14, 2010;

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. Capitalized terms used in this Agreement shall, unless otherwise defined herein, have the respective meanings ascribed to them in the Lease.
2. The term of the Lease shall be extended through December 31, 2010. All of the terms and provisions of the Lease shall apply throughout such extended term, except as otherwise set forth herein.
3. Each monthly installment of the total of the Base Rent, the additional rent for the "expandable square feet" pursuant to paragraph 5 of the Lease, and the Shared Expenses (collectively, the "Rent") for the period from June 1, 2010 through December 31, 2010 shall be one-half of the amount of the monthly installment of Rent in effect for May, 2010.
4. During the extended term of the Lease, Tenant may terminate the Lease as of the end of any calendar month upon at least ten (10) days advance written notice.
5. Provided that Tenant has not terminated the Lease as provided for in paragraph 4, above, and further provided that Tenant is not then in default under the Lease, as extended and amended hereby, Tenant may elect to extend the term of the Lease for the remainder of the initial two-year extended term that would have been in effect had Tenant timely exercised its initial right to extend the term of the Lease. Tenant shall make such an election by giving Landlord written notice thereof not later than December 15, 2010. At the time that Tenant makes such an election and as a condition thereof, Tenant will be required to pay to Landlord the difference between (a) the aggregate amount of Rent that would have been payable for the period from June 1, 2010 through December 31, 2010 had Tenant timely exercised its initial right to extend the term of the Lease and had this Agreement not been in effect and (b) the amount of Rent actually paid by Tenant for that same period, together with interest at the rate of 10% per annum on the accruing amount of such difference over such period. If Tenant makes the election set forth in this paragraph to further extend the term of the Lease for the balance of the initial two-year extended term, then the amount of Rent for the period from January 1, 2011 and thereafter shall be as set forth in the Lease, calculated without regard to the effect of this Agreement, and all other terms and provisions of the Lease shall continue in full force and effect, without regard to the effect of this Agreement.

6. In the event that Tenant either terminates the Lease as provided for in paragraph 4, above, or fails to extend the term of the Lease as provided for in paragraph 5, above, then (a) Tenant shall deliver to Landlord the CD, together with such duly executed documents of assignment as are necessary to transfer to Landlord the CD and all of Tenant's rights thereunder, and upon such delivery, Tenant shall be relieved of all of its obligations to perform the removal of the alterations, improvements and additions and the installation of the improvements and equipment to the Leased Premises, as provided for in paragraph 11 of the Lease, and (b) Landlord may retain as additional rent any remaining balance of the security deposit provided for in paragraph 25 of the Lease, after reducing the same for any rent arrearages or other damages resulting from a default by Tenant.

7. Tenant's obligation to "decommission" the Leased Premises in accordance with sub-paragraph 18.5(f) of the Lease upon any termination or expiration of the Lease shall continue to apply to any termination or expiration occurring on or before December 31, 2010, and Tenant shall in good faith attempt to comply with such obligation prior to the effective date of any such termination or expiration; provided, however, that in the event of a termination or expiration of the Lease on or before December 31, 2010, if Tenant cannot complete the decommissioning process prior to the effective date of such termination or expiration of the Lease, Tenant's occupancy of the Leased Premises solely for the purpose of completing the decommissioning process shall not give rise to a month-to-month tenancy or any further obligations for the payment of rent to Landlord.

8. In the event that Tenant either terminates the Lease as provided for in paragraph 4, above, or fails to extend the term of the Lease as provided for in paragraph 5, above, then that portion of paragraph 8 of the Lease that provides for a reconciliation, within ninety (90) days of the end of each calendar year, of the actual Shared Expenses against the estimated Shared Expenses, and a payment from or to Tenant for the difference, shall not be effective for the 2010 calendar year.

Executed August 4, 2010, but effective as of June 1, 2010.

McAllen Properties, LLC

By: /s/ Kerry McAllen

Kerry McAllen, Member

Collectar, Inc.

By: /s/ William R. Clarke

William R. Clarke, Chief Executive Officer

AMENDMENT TO LEASE EXTENSION AGREEMENT

This Agreement is entered into between McAllen Properties, LLC ("Landlord") and Collectar, Inc. ("Tenant").

WHEREAS, Landlord and Tenant are parties to a certain Lease entered into as of September 5, 2007 (the "Lease") for the premises described therein and a certain Lease Extension Agreement (the "Extension Agreement") entered into as of June 1, 2010; and

WHEREAS, Landlord and Tenant desire to amend the Extension Agreement as provided herein;

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. Paragraph 2 of the Extension Agreement shall be amended as follows:

The reference to December 31, 2010 therein shall be changed to March 31, 2011.

2. Paragraph 3 of the Extension Agreement shall be amended as follows:

The reference to December 31, 2010 therein shall be changed to March 31, 2011.

3. Paragraph 5 of the Extension Agreement shall be amended as follows:

The reference to December 15, 2010 in the second sentence thereof shall be changed to March 15, 2011; the reference to December 31, 2010 in the third sentence thereof shall be changed to March 31, 2011; and the reference to January 1, 2011 in the last sentence thereof shall be changed to April 1, 2011.

4. Paragraph 7 of the Extension Agreement shall be amended as follows:

The two references to December 31, 2010 therein shall be changed to March 31, 2011.

5. Paragraph 8 of the Extension Agreement shall be amended as follows:

The reference to the 2010 calendar year therein shall be changed to the 2010 and 2011 calendar years.

6. All terms and provisions of the Extension Agreement that are not amended as provided herein shall continue in full force and effect.

7. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document. Any counterpart may be delivered by facsimile or other form of electronic transmission and the delivery of a copy or digital image of an executed original or counterpart of this Agreement shall have the same force and effect as the delivery of an executed original.

Dated as of December 13, 2010.

McAllen Properties, LLC

By: /s/ Kerry McAllen

Kerry McAllen, Member

Collectar, Inc.

By: /s/ Jamey P. Weichert

Jamey P. Weichert, Interim President and Chief Executive
Officer

SECOND AMENDMENT TO LEASE EXTENSION AGREEMENT

This Agreement is entered into between McAllen Properties, LLC ("Landlord") and Collectar, Inc. ("Tenant").

WHEREAS, Landlord and Tenant are parties to a certain Lease entered into as of September 5, 2007 (the "Lease") for the premises described therein, a certain Lease Extension Agreement (the "Extension Agreement") entered into as of June 1, 2010, and a certain Amendment to Lease Extension Agreement (the "First Amendment") entered into as of December 13, 2010; and

WHEREAS, Landlord and Tenant desire to further amend the Extension Agreement as provided herein;

NOW, THEREFORE, for good and valuable consideration, the parties agree as follows:

1. The references to March 31, 2011 in Paragraphs 1, 2, 3 and 4 of the First Amendment shall be changed to May 31, 2011.
2. The reference to March 15, 2011 in Paragraph 3 of the First Amendment shall be changed to May 15, 2011; and the reference to April 1, 2011 in Paragraph 3 of the First Amendment shall be changed to June 1, 2011.
3. All terms and provisions of the First Amendment that are not amended as provided herein shall continue in full force and effect.
4. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document. Any counterpart may be delivered by facsimile or other form of electronic transmission and the delivery of a copy or digital image of an executed original or counterpart of this Agreement shall have the same force and effect as the delivery of an executed original.

Dated as of March 4, 2011.

McAllen Properties, LLC

By: /s/ Kerry McAllen
Kerry McAllen, Member

Collectar, Inc.

By: /s/ Jamey P. Weichert
Jamey P. Weichert, Interim President and Chief Executive Officer

ELECTION TO EXTEND TERM OF LEASE

McAllen Properties, LLC
2695 Gaston Rd.
Cottage Grove, WI 53527

This Election is made pursuant to the Lease between McAllen Properties, LLC (“Landlord”) and Collectar, LLC, dated September 5, 2007 and modified by a Lease Extension Agreement dated as of June 1, 2010, an Amendment to Lease Extension Agreement dated as of December 13, 2010, and a Second Amendment to Lease Extension Agreement dated as of March 4, 2011 (collectively, the “Lease”).

Since the date that the Lease was entered into, Collectar, LLC, the original tenant under the Lease, (i) converted into a corporation and changed its name to Collectar, Inc., and (ii) merged with and into Cell Acquisition Corp. As a result of the merger, the rights of Collectar, Inc. as tenant under the Lease were assigned to Cell Acquisition Corp., which assignment was consented to by Landlord as of April 1, 2011. Since the date of that assignment, Cell Acquisition Corp. has changed its name to Collectar, Inc., which is currently the “Tenant” under the Lease.

Pursuant to the terms of the Lease, Tenant hereby elects to extend the term of the Lease for the remainder of the initial two-year extended term that commenced September 15, 2010 and that continues through September 14, 2012. Tenant has delivered to Landlord, concurrent with the making of this election, the amount of Rent deferred under the Lease for the months of June, 2010 through April, 2011, together with interest thereon, and will pay Rent for the period commencing May 1, 2011 as set forth in the Lease, calculated without regard to the Lease Extension Agreement or the Amendments thereto referred to above.

Effective as of April 15, 2011.

Collectar, Inc.

ACCEPTANCE AND ACKNOWLEDGEMENT

McAllen Properties, LLC hereby (i) accepts in all respects the above Election to Extend Term of Lease; (ii) acknowledges receipt of Tenant's payment referred to above; and (iii) accepts this payment in satisfaction of the condition in the Lease that a specified payment of Rent, together with interest thereon, be made at the time of Tenant's election to extend the term of the Lease.

McAllen Properties, LLC hereby also acknowledges that the Lease is in full force and effect in accordance with its terms, including but not limited to Tenant's options to further extend the term of the Lease pursuant to paragraph 4 thereof (captioned "Options to Extend").

Effective as of April 15, 2011.

McAllen Properties, LLC

/s/ Kerry McAllen

By: Kerry McAllen, Member

**LOAN
AGREEMENT
BETWEEN THE
WISCONSIN DEPARTMENT OF COMMERCE
AND
CELLECTAR, INC.**

This Agreement is entered into by and between the Wisconsin Department of Commerce (“Department”) and Cellectar, Inc., (“Borrower”).

WITNESSETH

WHEREAS, the Department is authorized to award loan funds, for the purpose of economic development pursuant to Section 560.275 Wis. Stats. And pursuant to Section 560.137; and

WHEREAS, on February 3, 2010, the Department, relying upon representations in the Borrower's Application, agreed to lend up to Two Hundred Fifty Thousand and 00/100 Dollars (\$250,000.00) under the Technology Venture Fund program and Two Hundred Thousand and 00/100 Dollars (\$200,000.00) under the Gaming and Economic Development Fund program, to the Borrower to be utilized in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, for valid consideration, the receipt of which is hereby acknowledged, and in consideration for the promises and covenants in this Agreement, the Department and Borrower agree as follows:

1. **DEFINITIONS.** For the purposes of this Agreement, the following terms shall have the meanings set forth below:
 - a) “Agreement” means this agreement and the attached Exhibits between the Department and the Borrower, together with any future amendments thereto.
 - b) “Application” means the prospect data sheet and other materials submitted by the Borrower for this award.
 - c) “Borrower” means Cellectar, Inc., together with its lawful successors and assigns.
 - d) “Collateral” means the property described in Exhibit A.
 - e) “Department” means the Wisconsin Department of Commerce, together with its lawful successors and assigns.

- f) "Effective Date" means the date this Agreement is executed by the Department.
 - g) "Eligible Project Costs" means the costs and expenditures incurred by the Borrower in connection with the Project, as more fully described in Exhibit A.
 - h) "Loan" means the Department's loan to the Borrower under this Agreement.
 - i) "Project" means the activities described in Exhibit A.
 - j) "Promissory Note" means the Promissory Notes attached as Exhibit D-1 and Exhibit D-2.
 - k) "Term of This Agreement" means until the Borrower's obligations hereunder are fully satisfied.
2. **DISBURSEMENT OF LOAN PROCEEDS.** Loan disbursements to the Borrower hereunder for Eligible Project Costs shall be made on a periodic basis upon the Department's receipt and approval of a completed Request for Disbursement Form (attached as Exhibit C) and required supporting documentation.
- a) Prior to the disbursement of any Loan funds, the Borrower shall execute and deliver to the Department:
 - (i) A borrowing resolution.
 - (ii) A security agreement, granting the Department a security interest on the Collateral (see Exhibit A) purchased with the Loan funds or on all assets now owned or hereinafter acquired. Authentication of this agreement by the Borrower authorizes the Department to file a UCC financing statement for the stated Collateral.
 - (iii) All other documents that reasonably may be required by the Department to effect the terms and conditions of this Agreement.
 - b) The Borrower shall work with the Department of Administration to deliver a written Affirmative Action Plan.
 - c) Disbursements by the Department to the Borrower shall be made after a nonrefundable origination fee of \$5,000.00, two (2.0) percent of the award amount for the Technology Venture Fund Loan and a fee of \$4,000, two (2.0) percent of the award amount for the Gaming and Economic Development Loan, is paid to the Department.
3. **BORROWER'S LOAN PAYMENTS.** This Loan shall be repaid in accordance with the terms of the Promissory Note.
4. **TAXES AND FEES.** Except as otherwise provided in this Agreement, the Borrower shall keep the Collateral free and clear of all judgments, levies, liens, security interests and encumbrances and shall pay all federal, state and local fees, assessments and taxes which may be assessed upon the ownership, possession or use of the Collateral.
5. **INSURANCE.** The Borrower covenants that it will maintain insurance in such amounts and against such liabilities and hazards as customarily is maintained by other companies operating similar businesses.

6. **“EVENT OF DEFAULT” DEFINED.** The occurrence of any one or more of the following events shall constitute an “Event of Default” for the purposes of this Agreement:
- a) The Borrower’s failure to pay, within ten (10) calendar days of the due date, any of the principal payments or interest due under the Promissory Note;
 - b) The Borrower’s failure to comply, within sixty (60) calendar days of the due date, any of the reporting requirements required under section 9. c) and detailed in Exhibit B;
 - c) The Borrower’s failure to comply with or perform any of its obligations under this Agreement;
 - d) Any assignment for the benefit of the Borrower’s creditors or commission of any other act amounting to a business failure;
 - e) The filing, by or against the Borrower, of a petition under any chapter of the U.S. Bankruptcy Code or for the appointment of a receiver;
 - f) Any default or breach of the Borrower’s obligations under the terms and conditions of its loan agreements, leases, or financing arrangements with other creditors;
 - g) Any material misrepresentation with respect to the Borrower’s warranties and representations under this Agreement or the Application; or
 - h) Any other action or omission by the Borrower, which in the Department’s reasonable discretion, jeopardizes the Borrower’s ability to fulfill its obligations under this Agreement or otherwise causes the Department to deem itself insecure.

7. **REMEDIES IN EVENT OF DEFAULT.**

- a) Upon the occurrence of any Event of Default, the Department shall send a written notice of default to the Borrower, setting forth with reasonable specificity the nature of the default. If the Borrower fails to cure the default to the reasonable satisfaction of the Department within ten (10) calendar days, the Department may, without further written notice to the Borrower, declare the Borrower in default, terminate this Agreement effective immediately, and accelerate the principal balance, accrued interest, and other amounts owed by the Borrower hereunder.
- b) Upon the termination of this Agreement:
 - (i) The Borrower shall be liable for the full unpaid principal balance together with interest at the annual rate of twelve (12) percent from the date of the Event of Default to the date the Borrower’s obligations hereunder are paid in full.
 - (ii) Subject to the rights of other creditors, the Department shall be entitled to exercise any and all remedies available to the Department under this Agreement, related loan documents, and applicable laws.

- c) In addition to the rights and remedies available to the Department at law, in equity, or in bankruptcy, the Department shall be entitled to recover from the Borrower an amount equal to the sum of:
 - (i) The unpaid principal balance, accrued interest, and other amounts owed by the Borrower hereunder;
 - (ii) All court costs and reasonable attorney's fees incurred by the Department in the enforcement of its rights and remedies under this Agreement, including all costs incurred in foreclosing upon, repossessing, storing, repairing, selling, leasing or otherwise disposing of the Collateral; and
 - (iii) Any other damages arising from the Borrower's default.
 - d) The Department's foreclosure upon, repossession of, and subsequent sale, lease, or disposition of the Collateral shall not affect the Department's right to recover from the Borrower any and all damages caused by the Borrower's breach of this Agreement. The Department's rights and remedies hereunder shall be cumulative, not exclusive, and shall be in addition to all other rights and remedies available at law, in equity or in bankruptcy.
8. **BORROWER'S WARRANTIES AND REPRESENTATIONS.** To induce the Department to enter into this Agreement, and for other good and valuable consideration, the receipt of which is hereby acknowledged, the Borrower hereby warrants and represents that:
- a) The Borrower is duly organized, validly existing, and authorized to engage in business in the State of Wisconsin.
 - b) The Borrower is qualified to engage in business in every jurisdiction where the nature of its business makes such qualification necessary;
 - c) The Borrower is in compliance with all laws, regulations, ordinances and orders of public authorities applicable to it, the violation of which would have a material and adverse effect on the Borrower's financial ability to comply with this Agreement;
 - d) The Borrower is unaware of any conditions which could subject it to any damages, penalties or clean-up costs under any federal or state environmental laws which would have a material and adverse effect on the Borrower's financial ability to comply with this Agreement;
 - e) This Agreement is valid and enforceable in accordance with its terms against the Borrower, subject only to applicable bankruptcy, insolvency, reorganization or other similar laws affecting generally the enforceability of the rights of creditors;
 - f) The Borrower is financially solvent and able to comply with all of the terms and conditions set forth in the Agreement and is not in default under the terms and conditions of any loan agreements, leases, or financing arrangements with the Borrower's other creditors;
 - g) The financial statements and other information provided by the Borrower to the Department are complete and accurate in accordance with Generally Accepted Accounting Principles, and may be relied upon by the Department in deciding whether to enter into this Agreement with the Borrower;

- h) The Borrower has secured Project funds as identified in Exhibit A to fund all other costs relating to the Project;
- i) In making these warranties and representations, the Borrower has not relied upon any information furnished by the Department.
- j) The Borrower's warranties and representations herein are true and accurate as of the date of this Agreement, and shall survive the execution thereof;

9. **BORROWER COVENANTS.**

- a) Deliverables. The Borrower shall comply with the terms and conditions set forth in Exhibit A Section 3. of this agreement.
- b) Penalties. Should the Borrower fail to meet the terms and conditions set forth in Exhibit A and Exhibit B it shall be subject to penalties outlined in Exhibit A.
- c) Reporting. The Borrower shall provide the Department with reports, utilizing forms provided by the Department, as well as interim and/or fiscal year end financial statements in accordance with Exhibit B-1 and B-2.
- d) Inspection.
 - (i) The Department and its respective agents, shall, at any reasonable time and upon 48 hours notice, have the right to enter upon the Borrower's premises to inspect the Project.
 - (ii) The Borrower shall produce for the Department's inspection, examination, auditing and copying, upon reasonable advance notice, any and all records which relate to this Agreement.
- e) Nondiscrimination in Employment. During the Term of this Agreement, the Borrower shall not discriminate against any employee or applicant for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in sec. 51.01 (5) Stats., sexual orientation or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Except with respect to sexual orientation, the Borrower further agrees to take affirmative action to ensure equal employment opportunities. The Borrower agrees to post in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.
- f) Notification of Position Openings. In accordance with sec. 106.16, Stats., the Borrower shall, for a period of one year from the Effective Date, provide the Wisconsin Department of Workforce Development, local Job Service offices, and the area Workforce Development Board with prior written notice of any new or vacant Full-Time Positions that are related to the Project.

- g) Consolidation or Merger. During the term of this Agreement, the Borrower shall not consolidate or merge with or into any other corporation or business entity without providing prior written notice to the Department.
- h) Relocation of Operations. In accordance with §560.075(2), the Borrower shall conduct the Project and related activities in Wisconsin, for a minimum of five years from the date of the award.
10. **WISCONSIN OPEN RECORDS LAW.** Subject to the following terms, the Department shall safeguard all of the financial statements provided to them by the Borrower:
- a) Except as otherwise required or provided by court order, legal process or applicable Wisconsin law including, without limitation, the Wisconsin Open Records Law, sec. 19.31, Stats., et seq, the Department shall not reveal or disclose any financial information and documents provided by the Borrower to any non-government person or entity without the prior written consent of the Borrower.
- b) If the Borrower believes or contends that any financial statements provided hereunder qualify as “trade secrets” exempt from disclosure under the Wisconsin Open Records Law, the Borrower shall:
- (i) Fill out a standard trade secrets designation form to be provided by the Department, designating specific information or documents as “ trade secrets” and agreeing to defend and indemnify the Department, and to hold them harmless in the event of any future open records request asking for copies of such documents; and
- (ii) Provide the Department with two copies of such information -- a clean copy and a copy with the “trade secret” information redacted--for the Department’s files.
11. **ENTIRE AGREEMENT.** This Agreement and the accompanying loan documents, Promissory Note and Exhibits contain the entire Agreement of the parties concerning the Borrower's obligations under the terms and conditions of this Agreement. This Agreement may not be amended, modified or altered except in writing signed by the Borrower and the Department.
12. **CHOICE OF LAW. THIS AGREEMENT IS AND SHALL BE GOVERNED BY THE LAWS OF THE STATE OF WISCONSIN.** If any provisions of the Agreement shall be prohibited by or invalid under Wisconsin law, such provisions shall be ineffective only to the extent of such prohibition or invalidity, without affecting the validity or enforceability of the remaining provisions thereof.
13. **VENUE; JURISDICTION.** Any judicial action relating to the construction, interpretation, or enforcement of this Agreement, or the recovery of any principal, accrued interest, court costs, attorney’s fees and other amounts owed hereunder, shall be brought and venued in the U.S. District Court for the Western District of Wisconsin or the Dane County Circuit Court in Madison, Wisconsin. **THE BORROWER HEREBY CONSENTS TO PERSONAL JURISDICTION IN THOSE WISCONSIN COURTS, AND WAIVES ANY DEFENSES THAT THE BORROWER OTHERWISE MIGHT HAVE RELATING THERETO.**
14. **WAIVER OF RIGHT TO JURY TRIAL. THE BORROWER HEREBY WAIVES ITS RIGHT TO A JURY TRIAL IN CONNECTION WITH ANY JUDICIAL ACTION OR PROCEEDING THAT MAY ARISE BY AND BETWEEN THE DEPARTMENT AND THE BORROWER CONCERNING THE CONSTRUCTION, INTERPRETATION OR ENFORCEMENT OF THIS AGREEMENT, OR THE RECOVERY OF ANY PRINCIPAL, ACCRUED INTEREST, COURT COSTS, ATTORNEY’S FEES AND OTHER AMOUNTS THAT MAY BE OWED BY THE BORROWER HEREUNDER.**

15. **MISCELLANEOUS.**

- a) Severability. The invalidity of any provision of this Agreement shall not affect the validity of the remaining provisions, which shall remain in full force and effect to govern the parties' relationship.
- b) Department Not A Joint Venturer Or Partner. The Department shall not, under any circumstances, be considered or represented to be a partner or joint venturer of the Borrower or any beneficiary thereof.
- c) Documents. All documents required to be delivered contemporaneously with the execution and delivery of this Agreement are expressly made a part of this Agreement as though completely herein, and all references to this Agreement herein shall be deemed to refer to and include all such documents.
- d) Agreement Controlling. In the event of any conflict or inconsistency between the Agreement and the Exhibits hereto, the terms of this Agreement shall control.

16. **CAPTIONS.** The captions in this Agreement are for convenience of reference only and shall not define or limit any of the terms and conditions set forth herein.

17. **AUTHORITY TO SIGN DOCUMENT.** The person(s) signing this Agreement on behalf of the Borrower certifies and attests that the Borrower's respective Articles of Organization, Articles of Incorporation, By Laws, Member's Agreement, Charter, Partnership Agreement, Corporate or other Resolutions, and/or other related documents give full and complete authority to bind the Borrower, on whose behalf they are executing this document.

Borrower assumes full responsibility and holds the Department harmless for any and all payments made or any other actions taken by Department in reliance upon the above representation. Further, Borrower agrees to indemnify Department against any and all claims, demands, losses, costs, damages or expenses suffered or incurred by Department resulting from or arising out of any such payment or other action, including reasonable attorneys' fees and legal expenses. The Borrower has read, fully understands, and agrees to all of the terms and conditions in this Agreement and the related loan documents;

IN WITNESS WHEREOF, the Department and the Borrower have executed and delivered this Agreement effective the date set forth next to the Department's signature below.

WISCONSIN DEPARTMENT OF COMMERCE

By: /s/ Mary Gage
Mary Gage, Bureau Director

October 5, 2010
Date

CELLECTAR, INC.

By: /s/ Jamey P. Weichert
Jamey P. Weichert, Interim President and
CEO

September 15, 2010
Date

Notices to the Borrower hereunder shall be effective upon mailing by first class mail, postage prepaid, and addressed as follows or such other person and address as may be designated in writing:

Notices to the Department hereunder shall be effective upon mailing by first class mail, postage prepaid, and addressed as follows:

Cellectar, Inc.
3301 Agriculture Drive
Madison, WI 53716
Attn: Chris Blakley

Wisconsin Department of Commerce
Bureau of Business Finance
201 West Washington Avenue
P.O. Box 7970
Madison, WI 53707
Attn: Contract #TVF FY10-20024

EXHIBIT A
(PROJECT DESCRIPTION/DELIVERABLES)
Technology Venture Fund
Contract:# TVF FY10-20024 & GEDL FY10-20062

1. PROJECT SUMMARY:

Cellectar, Inc. is a Wisconsin C-Corporation founded as a Limited Liability Company in June 2000 and reorganized as a corporation in January 2008. The company is a radiopharmaceutical company that designs and develops products to detect, treat, and monitor a wide variety of human cancers. The company's lead therapy molecule, CLR1404, is in Phase 1 clinical dosimetry trials. The intent of the business is to progress the lead molecule on parallel tracks in both therapy and imaging of malignancy. The company anticipates initiating Phase 1 Maximum Tolerated Dose (MTD) trials in Q2 2010. Phase 2 clinical trials will follow in late 2010.

Radiopharmaceuticals are particularly difficult to manufacture to GMP standards as radiation safety for manufacturing personnel adds a significant level of complexity to the production of a sterile, injectable, single dose drug product. Therefore, Cellectar has developed a 16,100 square foot in-house GMP-validated radiopharmaceutical manufacturing facility consisting of offices, laboratories and radiopharmaceutical research "hot lab", a GMP radiopharmaceutical manufacturing suite and GMP analytical laboratories for product release. This custom-designed facility gives Cellectar the ability to be completely independent in its radiopharmaceutical research, development and manufacturing. The facility has sufficient capacity to deliver all drug products needed through an extensive phase 2 trial.

Cellectar is seeking to close a \$30-40 million fund raising effort in 2010. It is anticipated that the funding round will take the company through the next 5 years of development including phase 2 clinical trials for Small Cell Lung Cancer and Triple Negative Breast Cancer. Following phase 2 trials the company will then pursue an exit strategy.

In the interim Cellectar is raising \$2.7 million from a bridge venture debt round (convertible debt) and is seeking an additional \$450,000 from the Department in order to complete Phase I trials and conduct preclinical studies prior to the closing of their next funding round.

2. ELIGIBLE PROJECT COSTS:

| Code | USES | SOURCES | | | TOTAL |
|--------------|-----------------|----------------|----------------|------------------|------------------|
| | | TVF | GAMING | Investors | |
| | Working Capital | 250,000 | 200,000 | 2,700,000 | 3,150,000 |
| TOTAL | | 250,000 | 200,000 | 2,700,000 | 3,150,000 |

Project costs will be incurred between February 3, 2010 and June 30, 2011.

3. DELIVERABLES:

- a) The Recipient shall complete the Project as outlined above in this state;
- b) All grant funds must be spent in this state, to the extent practicable;
- c) To produce or cause to be produced in Wisconsin the product or products developed under this Agreement;
- d) For the term of this loan, the majority of jobs created as a result of the Project shall be located in Wisconsin and to the extent practicable, employ Wisconsin residents; and
- e) The majority of research to be performed under this Agreement shall be conducted in Wisconsin to the extent practical.

4. PENALTIES:

- a) Reporting. Should the Borrower fail to fulfill the reporting requirements within 60 days of the date due, as detailed under section 9. c) of the Agreement and outlined in Exhibit B, the Borrower shall be required to pay a \$100 fee. Continued failure to provide the required reporting could result in additional fees. This fee will apply to each required report that is due as listed in the reporting table in Exhibit B-1. Incomplete reports and/or required attachments will be treated as a failure to fulfill reporting obligations. A failure to pay penalties or continued failure to provide reports is considered an Event of Default. Penalties due may be referred to collection options available to the Department.

- 5. **COLLATERAL:** Subordinate position General Business Security Agreement on all assets now owned or hereinafter acquired.

EXHIBIT B-1
REPORTING
Technology Venture Fund
Contract:# TVF FY10-20024 & GEDL FY10-20062

1. **REPORTING REQUIREMENT.** The Borrower shall provide the Department with reports, utilizing forms provided by the Department, as well as interim and/or fiscal year end financial statements in accordance with the following table, or as otherwise requested by the Department:

REPORTING REQUIREMENTS TABLE

| Period Covered | Documentation Required | | | Due Date |
|-----------------------|------------------------|----------------------|--------------------|-----------|
| | Report | Financial Statements | | |
| | | Interim As of: | Fiscal Year Ended: | |
| 1/1/2010 – 12/31/2010 | Annual | | 12/31/2010 | 5/15/2011 |
| 1/1/2011 – 12/31/2011 | Annual | | 12/31/2011 | 5/15/2012 |
| 1/1/2012 – 12/31/2012 | Annual | | 12/31/2012 | 5/15/2013 |
| 1/1/2013 – 12/31/2013 | Annual | | 12/31/2013 | 5/15/2014 |
| 1/1/2014 – 12/31/2014 | Annual | | 12/31/2014 | 5/15/2015 |

2. **PROJECT RECORDS.** The Borrower shall prepare, keep and maintain such records as may be reasonably required by the Department to show:
- a) The number of Employees Created, Trained, or Maintained by the Borrower pursuant to this Agreement.
 - b) The amount and disposition of funds provided and disbursed under this Agreement;
 - c) The total cost of the Project.
3. **FINANCIAL RECORDS.** All of the Borrower’s financial records shall be prepared, kept and maintained in accordance with Generally Accepted Accounting Principles. The Borrower shall provide such records to the Department during the Term of the Agreement as may be requested. Such materials shall be retained by the Borrower for a period of at least three (3) years after the Project End Date.
- a) The financial statements and other information provided by the Borrower to the Department are complete and accurate in accordance with Generally Accepted Accounting Principles, and may be relied upon by the Department in deciding whether to enter into this Agreement with the Borrower;
4. **VERIFIED STATEMENT.** In accordance with Comm 149.40, within (90) days after the final report is submitted, or upon the request of the Department, the Borrower shall provide the Department with a verified statement including a report with 1) an itemized description of the Eligible Project Costs including verification that funds were expended in accordance with this Agreement, 2) a detailed description of the deliverables, and 3) date that the deliverables have been met. To be considered an acceptable verified statement, this report shall be signed by the company’s Director or Principal Officer attesting to the accuracy, completeness and validation of the submitted information. For loan amounts that total \$100,000.00 or more the report will also require a signature by an independent certified public accountant attesting to the accuracy of the information.

**EXHIBIT B-2
ANNUAL PROJECT REPORT**

This report is due no later than 60 days after the Due Date as defined in the Reporting Section of your Agreement with Commerce

| | | | |
|--|---|-----------------|---|
| BUSINESS: Collectar, Inc. NAME CHANGE? <input type="checkbox"/> Yes (Attach copy of Articles Of Organization) <input type="checkbox"/> No ADDRESS CHANGE? <input type="checkbox"/> Yes (Attach Letterhead Showing Change) <input type="checkbox"/> No | CONTRACT #: TVF FY10-20024 GEDL FY10-20062 | REP: cds | FOR ANNUAL PERIOD ENDED: <input type="checkbox"/> December 31, _____ <input type="checkbox"/> Other, _____ |
|--|---|-----------------|---|

| PROJECT INFORMATION | |
|---|-------------|
| Total Budgeted Project Cost per Agreement | \$3,150,000 |
| Total Funds Spent to Date | |
| Total Match Funds Spent to Date | |
| Total Project Funds Spent to Date | |

| FULL-TIME POSITIONS INFORMATION | |
|--|--|
| Total Number of Full Time Positions at Project Location at the Time of Award | |
| Actual Number of Full Time Positions at Project Location as of the End of this Semi-Annual Period | |
| Total Number of Full Time Positions to be Created per Agreement | |
| Cumulative Number of Full Time Positions that Participated in Created by the End of this Semi-Annual Period | |
| Were Any of the Full Time Positions Trained Not Maintained or Downgraded? <input type="checkbox"/> No <input type="checkbox"/> Yes # _____ (attach explanation) | |

| FINANCIAL INFORMATION |
|---|
| Please indicate which financial statements are being submitted with this report as required in Exhibit B. |
| <input type="checkbox"/> Interim Dated _____ |
| <input type="checkbox"/> Fiscal Year End Dated _____ |

| EMPLOYEE INFORMATION |
|---|
| <input type="checkbox"/> A Copy of Page 1 of the most recent UC 101 Report is attached. |
| Please submit the most recent Annual Reporting period year end Business's Federal Equal Opportunity Report (EEO-1) |
| <input type="checkbox"/> Exempt from filing EEO-1 |
| <input type="checkbox"/> Most recent EEO-1 is attached |
| Position Openings have been posted with the Department of Workforce Development, Job Service and/or Workforce Development Board <input type="checkbox"/> Yes <input type="checkbox"/> No (if no, attach explanation) |

| SIGNATURE: |
|--|
| I certify the information in this report is correct. |
| Signature of Business Representative/Date |
| Commerce Review Initials |

| |
|-----------------------------|
| PO # _____ |
| Commerce Initials: _____ |

**EXHIBIT C
REQUEST FOR DISBURSEMENT**

| | | |
|---|----------|--------------------------|
| Contract Number: TVF FY10-20024 GEDL FY10-20062 | Rep: cds | Company: Collectar, Inc. |
| Wismart #: | FEIN # | Request Number: |
| Disbursement Period Covered by this Request From: February 3, 2010 To: June 30, 2011 | | |

PROJECT EXPENSES INCURRED DURING THIS PERIOD

| Budget Code | Description | Total Expenses This Period | = | Company Match Expenses | + | State Reimbursable Expenses |
|---------------|-----------------------------------|----------------------------|---|------------------------|---|-----------------------------|
| 410 | Working Capital (TVF FY10-20024) | | | | | |
| 410 | Working Capital (GEDL FY10-20062) | | | | | |
| TOTAL: | | | | | | |

Requests for Disbursement must include supporting documentation in order to be approved by Commerce. Please identify the documentation included with this request: The Department may withhold disbursements if it determines that the Borrower has not provided adequate documentation of Eligible Project Costs, has failed to make adequate progress in the project, has failed to file required reports hereunder, or is otherwise in default under the terms of the Agreement.

- Itemized invoices for all Eligible Project Costs included in the Request for Disbursement Form that were paid to outside vendors.
- A report detailing the dollar amount and purpose of the Eligible Project Costs incurred this period included in the Request for Disbursement Form. This report should clearly describe how the Borrower derived the amounts included on the form.

| | |
|---|-------------|
| I hereby certify that the expenses reported on this form are in accordance with the terms of the agreement and that complete and accurate records are being kept to substantiate such expenses. | |
| _____ | _____ |
| Authorized Company Signature | Date |

This section is to be completed by Commerce

| | |
|-----------------------------|-----------|
| _____ | _____ |
| Business Finance Specialist | Date |
| _____ | _____ |
| Account Specialist | Date |

Retain a copy of the completed form for your records and mail the original to:
Department of Commerce, c/o Bureau of Business Finance, P.O. Box 7970, Madison, Wisconsin 53707-7970

EXHIBIT D-1
PROMISSORY NOTE
Contract # TVF FY10-20024

Amount: \$250,000.00

FOR VALID CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, and in consideration for the terms and conditions set forth in the Technology Venture Fund Agreement between the Wisconsin Department of Commerce (“Department”) and Collector, Inc. (“Borrower”) also identified as Contract #TVF FY10-20024, the Borrower promises to pay the Department the principal sum of Two Hundred Fifty Thousand and 00/100 Dollars (\$250,000.00), or so much thereof as may be advanced by the Department, together with interest, in accordance with the terms and conditions hereinafter set forth.

1. **DEFINITIONS.** Terms used in this Promissory Note shall have the same meanings as in the Agreement.
2. **INTEREST RATE.** Except as otherwise provided herein, this Promissory Note shall bear interest on the unpaid principal balance at the annual rate of Two (2) percent, from the date of actual disbursement of the funds, or any portion thereof, to the Borrower until this Promissory Note is paid in full. Interest shall be computed based upon a 365-day year.
3. **TERM.** The term of this Note shall commence on the Effective Date with all principal, accrued interest and other amounts owed hereunder being due and payable not later than April 1, 2017.
4. **DEFERRAL PERIOD.** The Borrower’s payments of principal and interest hereunder shall be deferred until April 30, 2015. All interest from the date of the Department’s first disbursement shall be paid in accordance with the terms of Paragraph 5.
5. **PAYMENT.** Commencing on May 1, 2015 and continuing on the first day of each consecutive month thereafter through and including March 1, 2017, the Borrower shall pay this Promissory Note in 23 equal monthly installments of \$11,297.00 each; followed by a final installment on April 1, 2017 which shall include all remaining principal, accrued interest and other amounts owed by the Borrower hereunder. Payments shall be applied first to interest accrued to date of receipt, and the balance, if any, to principal.
6. **TERMS OF PAYMENT.**
 - a) Time shall be of the essence as to the Borrower's payment of all principal, accrued interest, and other amounts owed hereunder, which shall be delivered to the Department at the following address, or such other place or places as the Department may designate, prior to the close of business on the due dates set forth above:

State of Wisconsin
Dept. of Commerce - Administrative
P.O. Box 78257
Milwaukee, WI 53293-0257
Attn: Contract TVF FY10-20024
 - b) If the Borrower fails to pay any amounts owed within ten (10) calendar days of the date when due, then, from the date of default until such delinquent payment is paid in full, the Borrower shall pay the Department interest on the delinquent payment at an annual rate of twelve (12) percent. The accrual and collection of such interest shall be in addition to and not in lieu of any other rights and remedies that the Department may have under the Agreement, the Promissory Note, other loan documents, and applicable federal and state laws.

- c) The Borrower shall bear the entire risk of loss, theft, damage, destruction, or seizure of the Collateral. The Borrower shall be obligated to pay the principal, interest, and other amounts owed hereunder even if the Borrower is unable to use the Collateral or any portion thereof, because of loss, theft, damage, destruction, seizure, nonrepair, lack of maintenance, or any other reason.
- d) All principal payments, interest and other amounts owed hereunder shall be paid by the Borrower regardless of any set off, counterclaim, recoupment, defense, or other rights which the Borrower may have against the Department, the sellers of the Collateral, the contractors and subcontractors involved in making improvements to the Collateral, or any other party.
7. **“EVENT OF DEFAULT” DEFINED.** The term “Event of Default” shall have the meaning set forth in the Agreement.
8. **REMEDIES IN EVENT OF DEFAULT.** Upon the occurrence of an Event of Default, the Department shall have the remedies set forth in the Agreement.
9. **NO PREPAYMENT PENALTY.** The Borrower shall have the right to prepay this Promissory Note, in whole or in part, at any time without penalty.
10. **CHOICE OF LAW. THIS PROMISSORY NOTE IS AND SHALL BE GOVERNED BY THE LAWS OF THE STATE OF WISCONSIN.** If any provisions of this Promissory Note shall be prohibited by or invalid under Wisconsin law, such provisions shall be ineffective only to the extent of such prohibition or invalidity, without affecting the validity or enforceability of the remaining provisions thereof.
11. **VENUE; JURISDICTION.** Any judicial action relating to the construction, interpretation, or enforcement of this Promissory Note, or the recovery of any principal, accrued interest, court costs, attorney’s fees and other amounts owed hereunder, shall be brought and venued in the U.S. District Court for the Western District of Wisconsin or the Dane County Circuit Court in Madison, Wisconsin. **THE BORROWER HEREBY CONSENTS TO PERSONAL JURISDICTION IN THOSE WISCONSIN COURTS, AND WAIVES ANY DEFENSES THAT MAKER OTHERWISE MIGHT HAVE RELATING THERETO.**
12. **CAPTIONS.** The captions in this Promissory Note are for convenience of reference only and shall not define or limit any of the terms and conditions set forth herein.
13. **WAIVER.** The Department’s failure to declare this Promissory Note in default or to otherwise enforce any of their respective rights or remedies shall not be deemed a waiver of its right to declare this Promissory Note in default and enforce its rights and remedies upon the occurrence of a future Event of Default. Nor shall the Department’s receipt and acceptance of any payment on this Promissory Note after the occurrence of an Event of Default constitute or be construed as a waiver of the default or the Department’s rights and remedies as a result of that default. No covenant, condition, or provision of this Promissory Note may be waived except with the Department’s express written consent.

14. **AGREEMENT INCORPORATED BY REFERENCE.** This Promissory Note is subject to all of the terms, conditions, covenants and promises set forth in the Agreement which is hereby incorporated by reference as if fully set forth herein.
15. **AUTHORITY TO SIGN DOCUMENT.** The person(s) signing this Promissory Note on behalf of the Borrower certifies and attests that the Borrower's respective Articles of Organization, Articles of Incorporation, By Laws, Member's Agreement, Charter, Partnership Agreement, Corporate or other Resolutions, and/or other related documents give full and complete authority to bind the Borrower, on whose behalf they are executing this document.

Borrower assumes full responsibility and holds the Department harmless for any and all payments made or any other actions taken by Department in reliance upon the above representation. Further, Borrower agrees to indemnify Department against any and all claims, demands, losses, costs, damages or expenses suffered or incurred by Department resulting from or arising out of any such payment or other action, including reasonable attorneys' fees and legal expenses.

IN WITNESS WHEREOF, the undersigned Borrower has executed and delivered this Promissory Note as of the dates set forth below.

CELLECTAR, INC.

By: /s/ Jamey P. Weichert
Jamey P. Weichert, Interim President and
CEO

September 15, 2010
Date

EXHIBIT D-2
PROMISSORY NOTE
Contract # GEDL FY10-20062

Amount: \$200,000.00

FOR VALID CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, and in consideration for the terms and conditions set forth in the Technology Venture Fund Agreement between the Wisconsin Department of Commerce (“Department”) and Collectar, Inc. (“Borrower”) also identified as Contract #GEDL FY10-20062, the Borrower promises to pay the Department the principal sum of Two Hundred Thousand and 00/100 Dollars (\$200,000.00), or so much thereof as may be advanced by the Department, together with interest, in accordance with the terms and conditions hereinafter set forth.

1. **DEFINITIONS.** Terms used in this Promissory Note shall have the same meanings as in the Agreement.
2. **INTEREST RATE.** Except as otherwise provided herein, this Promissory Note shall bear interest on the unpaid principal balance at the annual rate of Two (2) percent, from the date of actual disbursement of the funds, or any portion thereof, to the Borrower until this Promissory Note is paid in full. Interest shall be computed based upon a 365-day year.
3. **TERM.** The term of this Note shall commence on the Effective Date with all principal, accrued interest and other amounts owed hereunder being due and payable not later than April 1, 2017.
4. **DEFERRAL PERIOD.** The Borrower’s payments of principal and interest hereunder shall be deferred until April 30, 2015. All interest from the date of the Department’s first disbursement shall be paid in accordance with the terms of Paragraph 5.
5. **PAYMENT.** Commencing on May 1, 2015 and continuing on the first day of each consecutive month thereafter through and including March 1, 2017, the Borrower shall pay this Promissory Note in 23 equal monthly installments of \$9,368.00 each; followed by a final installment on April 1, 2017 which shall include all remaining principal, accrued interest and other amounts owed by the Borrower hereunder. Payments shall be applied first to interest accrued to date of receipt, and the balance, if any, to principal.
6. **TERMS OF PAYMENT.**
 - a) Time shall be of the essence as to the Borrower's payment of all principal, accrued interest, and other amounts owed hereunder, which shall be delivered to the Department at the following address, or such other place or places as the Department may designate, prior to the close of business on the due dates set forth above:

State of Wisconsin
Dept. of Commerce - Administrative
P.O. Box 78257
Milwaukee, WI 53293-0257
Attn: Contract GEDL FY10-20062
 - b) If the Borrower fails to pay any amounts owed within ten (10) calendar days of the date when due, then, from the date of default until such delinquent payment is paid in full, the Borrower shall pay the Department interest on the delinquent payment at an annual rate of twelve (12) percent. The accrual and collection of such interest shall be in addition to and not in lieu of any other rights and remedies that the Department may have under the Agreement, the Promissory Note, other loan documents, and applicable federal and state laws.

- c) The Borrower shall bear the entire risk of loss, theft, damage, destruction, or seizure of the Collateral. The Borrower shall be obligated to pay the principal, interest, and other amounts owed hereunder even if the Borrower is unable to use the Collateral or any portion thereof, because of loss, theft, damage, destruction, seizure, nonrepair, lack of maintenance, or any other reason.
 - d) All principal payments, interest and other amounts owed hereunder shall be paid by the Borrower regardless of any set off, counterclaim, recoupment, defense, or other rights which the Borrower may have against the Department, the sellers of the Collateral, the contractors and subcontractors involved in making improvements to the Collateral, or any other party.
7. **“EVENT OF DEFAULT” DEFINED.** The term “Event of Default” shall have the meaning set forth in the Agreement.
 8. **REMEDIES IN EVENT OF DEFAULT.** Upon the occurrence of an Event of Default, the Department shall have the remedies set forth in the Agreement.
 9. **NO PREPAYMENT PENALTY.** The Borrower shall have the right to prepay this Promissory Note, in whole or in part, at any time without penalty.
 10. **CHOICE OF LAW. THIS PROMISSORY NOTE IS AND SHALL BE GOVERNED BY THE LAWS OF THE STATE OF WISCONSIN.** If any provisions of this Promissory Note shall be prohibited by or invalid under Wisconsin law, such provisions shall be ineffective only to the extent of such prohibition or invalidity, without affecting the validity or enforceability of the remaining provisions thereof.
 11. **VENUE; JURISDICTION.** Any judicial action relating to the construction, interpretation, or enforcement of this Promissory Note, or the recovery of any principal, accrued interest, court costs, attorney’s fees and other amounts owed hereunder, shall be brought and venued in the U.S. District Court for the Western District of Wisconsin or the Dane County Circuit Court in Madison, Wisconsin. **THE BORROWER HEREBY CONSENTS TO PERSONAL JURISDICTION IN THOSE WISCONSIN COURTS, AND WAIVES ANY DEFENSES THAT MAKER OTHERWISE MIGHT HAVE RELATING THERETO.**
 12. **CAPTIONS.** The captions in this Promissory Note are for convenience of reference only and shall not define or limit any of the terms and conditions set forth herein.
 13. **WAIVER.** The Department’s failure to declare this Promissory Note in default or to otherwise enforce any of their respective rights or remedies shall not be deemed a waiver of its right to declare this Promissory Note in default and enforce its rights and remedies upon the occurrence of a future Event of Default. Nor shall the Department’s receipt and acceptance of any payment on this Promissory Note after the occurrence of an Event of Default constitute or be construed as a waiver of the default or the Department’s rights and remedies as a result of that default. No covenant, condition, or provision of this Promissory Note may be waived except with the Department’s express written consent.

14. **AGREEMENT INCORPORATED BY REFERENCE.** This Promissory Note is subject to all of the terms, conditions, covenants and promises set forth in the Agreement which is hereby incorporated by reference as if fully set forth herein.

15. **AUTHORITY TO SIGN DOCUMENT.** The person(s) signing this Promissory Note on behalf of the Borrower certifies and attests that the Borrower's respective Articles of Organization, Articles of Incorporation, By Laws, Member's Agreement, Charter, Partnership Agreement, Corporate or other Resolutions, and/or other related documents give full and complete authority to bind the Borrower, on whose behalf they are executing this document.

Borrower assumes full responsibility and holds the Department harmless for any and all payments made or any other actions taken by Department in reliance upon the above representation. Further, Borrower agrees to indemnify Department against any and all claims, demands, losses, costs, damages or expenses suffered or incurred by Department resulting from or arising out of any such payment or other action, including reasonable attorneys' fees and legal expenses.

IN WITNESS WHEREOF, the undersigned Borrower has executed and delivered this Promissory Note as of the dates set forth below.

CELLECTAR, INC.

By: /s/ Jamey P. Weichert
Jamey P. Weichert, Interim President and
CEO

September 15, 2010
Date

GENERAL BUSINESS SECURITY AGREEMENT

Dated September 15, 2010

1. SECURITY INTEREST

In consideration of any financial accommodation at any time granted by Wisconsin Department of Commerce (“**Lender**”) to Collectar, Inc. (“**Borrower**”), each of the undersigned (“**Debtor**,” whether one or more) grants Lender a security interest in all equipment, fixtures, inventory, documents, general intangibles, accounts, deposit accounts (unless a security interest would render a nontaxable account taxable), contract rights, chattel paper, patents, trademarks and copyrights (and the good will associated with and registrations and licenses of any of them), instruments, letter of credit rights and investment property, now owned or hereafter acquired by Debtor (or by Debtor with spouse), and all additions and accessions to, all spare and repair parts, special tools, equipment and replacements for, software used in, all returned or repossessed goods the sale of which gave rise to and all proceeds, supporting obligations and products of the foregoing (“**Collateral**”), wherever located, to secure all debts, obligations and liabilities to Lender arising out of credit previously granted, credit contemporaneously granted and credit granted in the future by Lender to any Debtor, or any Borrower, to any of them and another, or to another guaranteed or endorsed by any of them (“**Obligations**”).

2. DEBTOR'S WARRANTIES

Debtor warrants and agrees that while any of the Obligations are unpaid:

(a) **Ownership and use.** Debtor owns (or with spouse owns) the Collateral free of all encumbrances and security interests (except Lender's security interest). Chattel paper constituting Collateral evidences a perfected security interest in the goods (including software used in the goods) covered by it, free from all other encumbrances and security interests, and no financing statement is on file or control agreement in existence (other than Lender's) covering the Collateral or any of it. Debtor, acting alone, may grant a security interest in the Collateral and agree to the terms of this Agreement. The Collateral is used or bought for use primarily for business purposes.

(b) **Sale of goods or services rendered.** Each account and chattel paper constituting Collateral as of this date arose from the performance of services by Debtor or from a bona fide sale or lease of goods, which have been delivered or shipped to the account debtor and for which Debtor has genuine invoices, shipping documents or receipts.

(c) **Enforceability.** Each account, contract right and chattel paper constituting Collateral as of this date is genuine and enforceable against the account debtor according to its terms. It and the transaction out of which it arose comply with all applicable laws and regulations. The amount represented by Debtor to Lender as owing by each account debtor is the amount actually owing and is not subject to setoff, credit, allowance or adjustment, except discount for prompt payment, nor has any account debtor returned the goods or disputed liability.

(d) **Due date.** There has been no default as of this date according to the terms of any chattel paper or account constituting Collateral and no step has been taken to foreclose the security interest it evidences or otherwise enforce its payment.

(e) **Financial condition of account debtor.** As of this date Debtor has no notice or knowledge of anything which might impair the credit standing of any account debtor and Debtor will advise Lender upon receipt of any such notice or knowledge affecting Collateral.

(f) **Valid organization.** If a corporation, limited liability company or general or limited partnership, Debtor is duly organized, validly existing and in good standing under the laws of the state of organization and is authorized to do business in Wisconsin.

(g) **Other agreements.** Debtor is not in default under any agreement for the payment of money.

(h) **Authority to contract.** The execution and delivery of this Agreement and any instruments evidencing Obligations will not violate or constitute a breach of Debtor's articles of incorporation or organization, by-laws, partnership agreement, operating agreement or any other agreement or restriction to which Debtor is a party or is subject.

(i) **Accuracy of information.** All information, certificates or statements given to Lender pursuant to this Agreement shall be true and complete when given.

(j) **Name and address.** Debtor's exact legal name is as set forth below Section 11. If Debtor is an individual, the address of Debtor's principal residence is as set forth below Section 11. If Debtor is an organization that has only one place of business, the address of Debtor's place of business, or if Debtor has more than one place of business, then the address of Debtor's chief executive office, is as set forth below Section 11.

(k) **Location.** The address where the Collateral will be kept, if different from that appearing below Section 11, is

Such location shall not be changed without prior written consent of Lender, but the parties intend that the Collateral, wherever located, is covered by this Agreement.

(l) **Organization.** If Debtor is an organization, the type of organization and the state under whose law it is organized are as set forth below Section 11.

(m) **Environmental laws.** (i) No substance has been, is or will be present, used, stored, deposited, treated, recycled or disposed of on, under, in or about any real estate now or at any time owned or occupied by Debtor (“**Property**”) during the period of Debtor's ownership or use of the Property in a form, quantity or manner which if known to be present on, under, in or about the Property would require clean-up, removal or some other remedial action (“**Hazardous Substance**”) under any federal, state or local laws, regulations, ordinances, codes or rules (“**Environmental Laws**”), (ii) Debtor has no knowledge, after due inquiry, of any prior use or existence of any Hazardous Substance on the Property by any prior owner or person using the Property, (iii) without limiting the generality of the foregoing, Debtor has no knowledge, after due inquiry, that the Property contains asbestos, polychlorinated biphenyl components (PCBs) or underground storage tanks, (iv) there are no conditions existing currently or likely to exist during the term of this Agreement which would subject Debtor to any damages, penalties, injunctive relief or clean-up costs in any governmental or regulatory action or third-party claim relating to any Hazardous Substance, (v) Debtor is not subject to any court or administrative proceeding, judgment, decree, order or citation relating to any Hazardous Substance, and (vi) Debtor in the past has been, at the present is, and in the future will remain in compliance with all Environmental Laws. Debtor shall indemnify and hold harmless Lender, its directors, officers, employees and agents from all loss, cost (including reasonable attorneys' fees and legal expenses), liability and damage whatsoever directly or indirectly resulting from, arising out of, or based upon (1) the presence, use, storage, deposit, treatment, recycling or disposal, at any time, of any Hazardous Substance on, under, in or about the Property, or the transportation of any Hazardous Substance to or from the Property, (2) the violation or alleged violation of any Environmental Law, permit, judgment or license relating to the presence, use, storage, deposit, treatment, recycling or disposal of any Hazardous Substance on, under, in or about the Property, or the transportation of any Hazardous Substance to or from Property, or (3) the imposition of any

governmental lien for the recovery of environmental clean-up costs expended under any Environmental Law. Debtor shall immediately notify Lender in writing of any governmental or regulatory action or third-party claim instituted or threatened in connection with any Hazardous Substance described above on, in, under or about the Property.

(n) Employees. There are no unpaid wages due employees of Debtor and there are no outstanding liens against assets of Debtor for unpaid wages due employees of Debtor.

(o) Fixtures. If any of the Collateral is affixed to real estate, the legal description of the real estate set forth in each UCC Financing Statement signed or authorized by Debtor is true and correct.

3. SHIPPERS

Shippers authorized to draw drafts on Lender under section 6(c) are:

4. SALE AND COLLECTIONS

(a) Sale of Inventory. So long as no default exists under any of the Obligations or this Agreement, Debtor may (a) sell inventory in the ordinary course of Debtor's business for cash or on terms customary in the trade, at prices not less than any minimum sale price shown on instruments evidencing Obligations and describing inventory, or (b) lease or license inventory on terms customary in the trade.

(b) Verification and notification. Lender may verify Collateral in any manner, and Debtor shall assist Lender in so doing. Upon default Lender may at any time and Debtor shall, upon request of Lender, notify the account debtors or other persons obligated on the Collateral to make payment directly to Lender and Lender may enforce collection of, settle, compromise, extend or renew the indebtedness of such account debtors or other persons obligated on the Collateral. Until account debtors or other persons obligated on the Collateral are so notified, Debtor, as agent of Lender, shall make collections and receive payments on the Collateral.

(c) Deposit with Lender. At any time Lender may require that all proceeds of Collateral received by Debtor shall be held by Debtor upon an express trust for Lender, shall not be commingled with any other funds or property of Debtor and shall be turned over to Lender in precisely the form received (but endorsed by Debtor if necessary for collection) not later than the business day following the day of their receipt. Except as provided in Section 4(d) below, all proceeds of Collateral received by Lender directly or from Debtor shall be applied against the Obligations in such order and at such times as Lender shall determine.

(d) Accounting. If the extent to which Lender's security interest in the Collateral is a purchase money security interest depends on the application of a payment to a particular obligation of Debtor, the payment shall first be applied to obligations of Debtor for which Debtor did not create a security interest in the order in which those obligations were incurred and then to obligations of Debtor for which Debtor did create a security interest, including the Obligations secured by the Collateral, in the order in which those obligations were incurred; provided, however, that Lender shall retain its security interest in all Collateral regardless of the allocation of payments.

THIS AGREEMENT INCLUDES THE ADDITIONAL PROVISIONS ON PAGES 2 AND 3.

Page 1 of 3

ADDITIONAL PROVISIONS

5. DEBTOR'S COVENANTS

(a) Maintenance of Collateral. Debtor shall: maintain the Collateral in good condition and repair and not permit its value to be impaired; keep it free from all liens, encumbrances and security interests (other than Lender's security interest); defend it against all claims and legal proceedings by persons other than Lender; pay and discharge when due all taxes, license fees, levies and other charges upon it; not sell, lease, license or otherwise transfer or dispose of it or permit it to become a fixture or an accession to other goods, except for sales, leases or licenses of inventory as provided in this Agreement; not permit it to be used in violation of any applicable law, regulation or policy of insurance; and, as to Collateral consisting of instruments, chattel paper and letter of credit rights, preserve rights in it against prior parties. Loss of or damage to the Collateral shall not affect the liabilities of any Debtor or Borrower under this Agreement, the Obligations or other rights of Lender with respect to the Collateral.

(b) Insurance. Debtor shall keep the Collateral and Lender's interest in it insured under policies with such provisions, for such amounts and by such insurers as shall be satisfactory to Lender from time to time, and shall furnish evidence of such insurance satisfactory to Lender. Subject to Lender's satisfaction, Debtor is free to select the insurance agent or insurer through which the insurance is obtained. Debtor assigns (and directs any insurer to pay) to Lender the proceeds of all such insurance and any premium refund, and authorizes Lender to endorse in the name of Debtor any instruments for such proceeds or refunds and, at the option of Lender, to apply such proceeds and refunds to any unpaid balance of the Obligations, whether or not due, and/or to restoration of the Collateral, returning any excess to Debtor. Each insurance policy shall contain a standard lender's loss payable endorsement in favor of Lender, and shall provide that the policy shall not be cancelled, and the coverage shall not be reduced, without at least 10 days' prior written notice by the insurer to Lender. Lender is authorized, in the name of Debtor or otherwise, to make, adjust and/or settle claims under any credit insurance financed by Lender or any insurance on the Collateral, or cancel the same after the occurrence of an event of default. If Debtor fails to keep any required insurance on the Collateral, Lender may purchase such insurance for Debtor, such insurance may be acquired by Lender solely to protect the interest of Lender (and will not cover Debtor's equity in the Collateral), and Debtor's obligation to repay Lender shall be in accordance with Section 6(a).

(c) Maintenance of security interest. Debtor shall pay all expenses and upon request, take any action reasonably deemed advisable by Lender to preserve the Collateral or to establish, evidence, determine and maintain priority of, perfect, continue perfected, terminate and/or enforce Lender's interest in it or rights under this Agreement. Debtor authorizes Lender to file Uniform Commercial Code financing statements describing the Collateral (including describing the Collateral as "all assets," "all personal property" or with words of similar effect) and amendments and correction statements to such financing statements and ratifies any such financing statement or amendment filed prior to the date of this Agreement. Debtor will cooperate with Lender in obtaining control of Collateral or other security for the Obligations for which control may be required to perfect Lender's security interest under applicable law. If the Collateral is in possession of a third party, Debtor will join with Lender at its request in notifying the third party of Lender's security interest and obtaining an acknowledgment from the third party that it is holding the Collateral for the benefit of Lender.

(d) Taxes and other charges. Debtor shall pay and discharge all lawful taxes, assessments and government charges upon Debtor or against its properties prior to the date on which penalties attach, unless and to the extent only that such taxes, assessments and charges are contested in good faith and by appropriate proceedings by Debtor.

(e) Employees. Debtor shall pay all wages when due to employees of Debtor and shall not permit any lien to exist against the assets of Debtor for unpaid wages due employees of Debtor.

(f) Records and statements. Debtor shall furnish to Lender financial statements at least annually and such other financial information respecting Debtor at such times and in such form as Lender may request. Debtor shall keep accurate and complete records respecting the Collateral in such form as Lender may approve. At such times as Lender may require, Debtor shall furnish to Lender a statement certified by Debtor and in such form and containing such information as may be prescribed by Lender, showing the current status and value of the Collateral. Debtor shall furnish to Lender such reports regarding the payment of wages to employees of Debtor and the number of employees of Debtor as Lender may from time to time request, and without request shall furnish to Lender a written report immediately upon any material increase in the number of employees of Debtor, the failure of Debtor to pay any wages when due to employees of Debtor or the imposition of any lien against the assets of Debtor for unpaid wages due employees of Debtor.

(g) Inspection of Collateral. At reasonable times Lender may examine the Collateral and Debtor's records pertaining to it, wherever located, and make copies of records, and Debtor shall assist Lender in so doing.

(h) Service charge. In addition to the required payments under the Obligations and this Agreement, Debtor shall pay Lender's then current service charges for servicing and auditing in connection with this Agreement.

(i) Chattel paper. Lender may require that chattel paper constituting Collateral shall be on forms approved by Lender. Unless it consists of electronic chattel paper, Debtor shall promptly mark all chattel paper constituting Collateral, and all copies, to indicate conspicuously Lender's interest and, upon request, deliver them to Lender. If it consists of electronic chattel paper, Debtor shall promptly notify Lender of the existence of the electronic chattel paper and, at the request of Lender, shall take such actions as Lender may reasonably request to vest in Lender control of such electronic chattel paper under applicable law.

(j) United States contracts. If any Collateral arose out of contracts with the United States or any of its departments, agencies or instrumentalities, Debtor will notify Lender and execute writings required by Lender in order that all money due or to become due under such contracts shall be assigned to Lender and proper notice of the assignment given under the Federal Assignment of Claims Act.

(k) Modifications. Without the prior written consent of Lender, Debtor shall not alter, modify, extend, renew or cancel any accounts, letter of credit rights or chattel paper constituting Collateral or any Collateral constituting part of the Debtor's borrowing base.

(l) Returns and repossessions. Debtor shall promptly notify Lender of the return to or repossession by Debtor of goods underlying any Collateral and Debtor shall hold and dispose of them only as Lender directs.

(m) Promissory Notes, Chattel Paper and Investment Property. If Debtor shall at any time hold or acquire Collateral consisting of promissory notes, chattel paper or certificated securities, Debtor shall endorse, assign and deliver the same to Lender accompanied by such instruments of transfer or assignment duly executed in blank as Lender may from time to time request.

(n) Change of name, address or organization. Debtor shall not change Debtor's legal name or address without providing at least 30 days' prior written notice of the change to Lender. Debtor if it is an organization shall not change its type of organization or state under whose law it is organized and shall preserve its organizational existence, and Debtor whether or not Debtor is an organization shall not, in one transaction or in a series of related transactions, merge into or consolidate with any other organization, change Debtor's legal structure or sell or transfer all or substantially all of Debtor's assets.

6. RIGHTS OF LENDER

(a) Authority to perform for Debtor. Upon the occurrence of an event of default or if Debtor fails to perform any of Debtor's duties

set forth in this Agreement or in any evidence of or document relating to the Obligations, Lender is authorized, in Debtor's name or otherwise, to take any such action including without limitation signing Debtor's name or paying any amount so required, and the cost shall be one of the Obligations secured by this Agreement and shall be payable by Debtor upon demand with interest from the date of payment by Lender at the highest rate stated in any evidence of any Obligation but not in excess of the maximum rate permitted by law.

(b) Charging Debtor's credit balance. Unless a lien would be prohibited by law or would render a nontaxable account taxable, Debtor grants Lender, as further security for the Obligations, a security interest and lien in any deposit account Debtor may at any time have with Lender and other money now or hereafter owed Debtor by Lender, and agrees that Lender may, at any time after the occurrence of an event of default, without prior notice or demand, set-off all or any part of the unpaid balance of the Obligations against any deposit balances or other money now or hereafter owed Debtor by Lender.

(c) Power of attorney. Debtor irrevocably appoints any officer of Lender as Debtor's attorney, with power after an event of default to receive, open and dispose of all mail addressed to Debtor (and Lender shall not be required as a condition to the exercise of this power to prove the occurrence of an event of default to the Post Office); to notify the Post Office authorities to change the address for delivery of all mail addressed to Debtor to such address as Lender may designate; to endorse the name of Debtor upon any instruments which may come into Lender's possession; and to sign and make draws under any letter of credit constituting Collateral on Debtor's behalf. Debtor agrees that Obligations may be created by drafts drawn on Lender by shippers of inventory named in Section 3. Debtor authorizes Lender to honor any such draft accompanied by invoices aggregating the amount of the draft and describing inventory to be shipped to Debtor and to pay any such invoices not accompanied by drafts. Debtor appoints any employee of Lender as Debtor's attorney, with full power to sign Debtor's name on any instrument evidencing an Obligation, or any renewals or extensions, for the amount of such drafts honored by Lender and such instruments may be payable at fixed times or on demand, shall bear interest at the rate from time to time fixed by Lender and Debtor agrees, upon request of Lender, to execute any such instruments. This power of attorney to execute instruments may be revoked by Debtor only by written notice to Lender and no such revocation shall affect any instruments executed prior to the receipt by Lender of such notice. All acts of such attorney are ratified and approved and such attorney is not liable for any act or omission or for any error of judgment or mistake of fact or law. This power is a power coupled with an interest and is given as security for the Obligations, and the authority conferred by this power is and shall be irrevocable and shall remain in full force and effect until renounced by Lender except as otherwise expressly provided in this Section 6(c).

(d) Non-liability of Lender. Lender has no duty to determine the validity of any invoice, the authority of any shipper named in section 3 to ship goods to Debtor or compliance with any order of Debtor. Lender has no duty to protect, insure, collect or realize upon the Collateral or preserve rights in it against prior parties. Debtor releases Lender from any liability for any act or omission relating to the Obligations, the Collateral or this Agreement, except Lender's willful misconduct.

7. DEFAULT

Upon the occurrence of one or more of the following events of default:

(a) Nonperformance. Any of the Obligations are not paid when due, or Borrower or Debtor, as applicable, fails to perform, or rectify breach of, any warranty or covenant or other undertaking in this Agreement or in any evidence of or document relating to the Obligations or an event of default occurs under any evidence of or document relating to any other obligation secured by the Collateral;

(b) Inability to Perform. Borrower, Borrower's spouse, Debtor or a guarantor or surety of any of the Obligations dies, ceases to exist, becomes insolvent or the subject of bankruptcy or insolvency proceedings or any guaranty of the Obligations is revoked or becomes unenforceable for any reason;

(c) Misrepresentation. Any warranty or representation made to induce Lender to extend credit to Debtor or Borrower, under this Agreement or otherwise, is false in any material respect when made; or

(d) Insecurity. At any time Lender believes in good faith that the prospect of payment or performance of any of the Obligations or performance under any agreement securing the Obligations is impaired;

all of the Obligations shall, at the option of Lender and without notice or demand, become immediately payable; and Lender shall have all rights and remedies for default provided by the Wisconsin Uniform Commercial Code and this Agreement, as well as any other applicable law, and under any evidence of or document relating to any Obligation, and all such rights and remedies are cumulative and may be exercised from time to time. With respect to such rights and remedies:

(e) Repossession. Lender may take possession of Collateral without notice or hearing, which Debtor waives;

(f) Assembling collateral. Lender may require Debtor to assemble the Collateral and to make it available to Lender at any place reasonably designated by Lender;

(g) Notice of disposition. Written notice, when required by law, sent to any address of Debtor in this Agreement at least 10 calendar days (counting the day of sending) before the date of a proposed disposition of the Collateral is reasonable notice;

(h) Expenses and application of proceeds. Debtor shall reimburse Lender for any expense incurred by Lender in protecting or enforcing its rights under this Agreement, before and after judgment, including, without limitation, reasonable attorneys' fees and legal expenses (including those incurred in successful defense or settlement of any counterclaim brought by Debtor or incident to any action or proceeding involving Debtor brought pursuant to the United States Bankruptcy Code) and all expenses of taking possession, holding, preparing for disposition and disposing of Collateral (provided, however, Lender has no obligation to clean-up or otherwise prepare the Collateral for sale). After deduction of such expenses, Lender shall apply the proceeds of disposition to the extent actually received in cash to the Obligations in such order and amounts as it elects or as otherwise required by this Agreement. If Lender sells any Collateral on credit, Debtor will be credited only with payments that the purchaser actually makes and that Lender actually receives and applies to the unpaid balance of the purchase price of the Collateral; and

(i) Waiver. Lender may permit Debtor or Borrower to remedy any default without waiving the default so remedied, and Lender may waive any default without waiving any other subsequent or prior default by Borrower or Debtor. Lender shall continue to have all of its rights and remedies under this Agreement even if it does not fully and properly exercise them on all occasions.

8. WAIVER AND CONSENT

Each Debtor who is not also a Borrower expressly consents to and waives notice of the following by Lender without affecting the liability of any such Debtor: (a) the creation of any present or future Obligation, default under any Obligation, proceedings to collect from any Borrower or anyone else, (b) any surrender, release, impairment, sale or other disposition of any security or collateral for the Obligations, (c) any release or agreement not to sue any guarantor or surety of the Obligations, (d) any failure to perfect a security interest in or realize upon any security or collateral for the Obligations, (e) any failure to realize upon any of the Obligations or to proceed against any Borrower or any guarantor or surety, (f) any renewal or extension of the time of payment, (g) any allocation and application of payments and credits and acceptance of partial payments, (h) any application of the proceeds of disposition of any collateral for the Obligations to any obligation of any Debtor or Borrower secured by such collateral in such order and amounts as it elects, (i) any determination of what, if anything, may at any time be done with reference to any security or collateral, and (j) any settlement or compromise of the amount due or owing or claimed to be due or owing from any Borrower, guarantor or surety.

9. INTERPRETATION

The validity, construction and enforcement of this Agreement are governed by the internal laws of Wisconsin except to the extent such laws are preempted by federal law. All terms not otherwise defined have the meanings assigned to them by the Wisconsin Uniform Commercial Code, as amended from time to time, provided, however, that the term "instrument" shall be such term as defined in the Wisconsin Uniform Commercial Code-Secured Transactions Chapter 409. All references in this Agreement to sections of the Wisconsin Statutes are to those sections as they may be renumbered from time to time. Invalidity of any provision of this Agreement shall not affect the validity of any other provision. This Agreement is intended by Debtor and Lender as a final expression of this Agreement and as a complete and exclusive statement of its terms, there being no conditions to the enforceability of this Agreement. This Agreement may not be supplemented or modified except in writing.

10. PERSONS BOUND

Each person signing this Agreement is a Debtor. All Debtors are jointly and severally liable under this Agreement. This Agreement benefits Lender, its successors and assigns, and binds Debtor(s) and their respective heirs, personal representatives, successors and assigns and shall bind all persons and entities who become bound as a debtor to this Agreement. If checked here, this Agreement amends and replaces in their entirety the provisions of all existing General Business Security Agreements between Debtor and Lender; provided, however, that all security interests granted to Lender under those existing security agreements shall remain in full force and effect, subject to the provisions of this Agreement. Debtor acknowledges receipt of a completed copy of this Agreement.

11. OTHER PROVISIONS

(If none stated below, there are no other provisions.)

Exceptions to section 2. (a), Collateral encumbrances and security interests: As of September 10, 2010, the Lender acknowledges that the Borrower has outstanding encumbrances or security interests granted to M & I Marshall and Ilsley Bank, GFC Leasing, A Division of Gordon Fleisch Co., Inc., North Star Leasing, and Cisco Systems Capital Corp.

Exceptions to section 2. (m), Debtor's Warranties relating to environmental laws: Lender acknowledges that Debtor is a radiopharmaceutical company which makes use of, stores, manufactures, and develops materials that are radioactive; that Debtor is fully licensed by the State of Wisconsin to use radioactive materials; and that Debtor makes use of a number of chemicals in its research and production activities, including certain chemicals, such as Chloroform, that are considered hazardous.

SEE SECTIONS 2(j) AND (k)

Corporation

TYPE OF ORGANIZATION

Wisconsin

(SEAL)

STATE OF ORGANIZATION

/s/ Jamey P. Weichert

Jamey P. Weichert, Interim President & CEO

(SEAL)

(SEAL)

(SEAL)

Address:

SEE SECTIONS 2(j) AND (k)

(SEAL)

TYPE OF ORGANIZATION

(SEAL)

(SEAL)

(SEAL)

(SEAL)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated June 14, 2011, with respect to the financial statements of Novelos Therapeutics, Inc. contained in the Registration Statement and Prospectus. We consent to the use of the aforementioned report in the Registration Statement and Prospectus, and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

Chicago, Illinois
June 30, 2011



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155 Seaport Boulevard
Boston, MA 02210-2600

617 832 1000 *main*
617 832 7000 *fax*

Paul Bork
617 832 1113 *direct*
pbork@foleyhoag.com

June 30, 2011

Via Edgar

Securities and Exchange Commission
Division of Corporate Finance
100 F Street, N.E.
Washington, DC 20549

Re: Novelos Therapeutics, Inc.
Registration Statement on Form S-1

Ladies and Gentlemen:

This letter constitutes supplemental correspondence on behalf of Novelos Therapeutics, Inc., a Delaware corporation (the "Company"), related to and filed together with the Company's Registration Statement on Form S-1 (the "Registration Statement"). The Registration Statement covers a proposed underwritten public offering (the "Offering") by the Company of shares of the Company's common stock, par value \$0.00001 per share (the "Common Stock"), for an aggregate purchase price of \$15,000,000, plus an additional \$2,250,000 of proceeds that may be received pursuant to the exercise of a 45-day option to be granted to the Rodman & Renshaw, LLC, the underwriter for the Offering, for the purpose of covering over-allotments.

The Company has obtained shareholder approval to complete a reverse stock split at one of a number of ratios between 1:2 and 1:10, to be selected by the Company's board of directors. The purpose of the reverse split will be to increase the market price per share of the Common Stock above the minimum required for listing on The Nasdaq Capital Market, which listing the Company intends to seek in connection with the Offering. The Company would register under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), in connection with such listing. The Company currently reports pursuant to Section 15(d) of the Exchange Act.

ATTORNEYS AT LAW

BOSTON | WASHINGTON | EMERGING ENTERPRISE CENTER | FOLEYHOAG.COM

On April 8, 2011, the Company completed its acquisition of Collectar, Inc. ("Collectar") for consideration consisting of approximately 85% of the outstanding Common Stock as of immediately following the acquisition (but prior to the completion of the related private placement of Common Stock and warrants to purchase Common Stock which occurred promptly thereafter). As a result of the acquisition, following which the former stockholders of Collectar held a majority of the outstanding Common Stock, Collectar has been treated as the acquirer for accounting and financial reporting purposes. Accordingly, the audited financial statements included in the Registration Statement are the historical financial statements of Collectar, which were also included as an exhibit to a Form 8-K/A filed with the Securities and Exchange Commission on June 14, 2011. These financial statements have been audited by Grant Thornton, LLP. As disclosed in a Form 8-K filed with the Securities and Exchange Commission on June 1, 2011, the Company retained Grant Thornton, LLP as its auditors on May 25, 2011. Unaudited pro forma condensed combined financial statements, giving effect to the acquisition, have also been included in the Registration Statement.

Should a member of the Staff have any questions concerning this filing, it is requested that he or she contact the undersigned, Paul Bork, at (617) 832-1113 or, in my absence, Matthew Eckert at (617) 832-3057.

Very truly yours,

/s/ Paul Bork

Paul Bork

PB
Enclosures

cc: Mr. Harry Palmin
Mr. Matthew Eckert
