Filed pursuant to Rule 424(b)(3)
Registration No. 333-143263

PROSPECTUS

12,000,000 shares of common stock

NOVELOS THERAPEUTICS, INC.

This prospectus relates to the resale, from time to time, of up to 12,000,000 shares of our common stock by the stockholders referred to throughout this prospectus as "selling stockholders." The shares of our common stock offered in this prospectus are issuable on conversion of a portion of the outstanding shares of our Series E Preferred Stock

The selling stockholders will receive all of the proceeds from the sales made under this prospectus. Accordingly, we will receive no part of the proceeds from sales made under this prospectus. We are paying the expenses incurred in registering the shares, but all selling and other expenses incurred by the selling stockholders will be borne by the selling stockholders.

Our common stock is quoted on the OTC Electronic Bulletin Board of the National Association of Securities Dealers, Inc. under the symbol "NVLT.OB." On April 20, 2009, the last reported sale price of our common stock on the OTC Electronic Bulletin Board was $0.40 per share.

Investing in our common stock involves a high degree of risk.
See risk factors beginning on page 7 of this prospectus.

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.

The date of this prospectus is April 27, 2009

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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 the common stock, including the merits and risks involved.

We are not making any representation to you regarding the legality of an investment in our common stock 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.

PROSPECTUS SUMMARY

The following summary highlights certain material aspects of the offering for resale of common stock by the selling stockholders covered by this prospectus but may not contain all of the information that is important to you. You should read this summary together with the more detailed information regarding our company, our common stock and our financial statements and notes to those statements appearing elsewhere in this prospectus, including the "RISK FACTORS" beginning on page 7.

Business

We are a biopharmaceutical company, established in 1996, commercializing oxidized glutathione-based compounds for the treatment of cancer and hepatitis.

NOV-002, our lead compound, is currently in Phase 3 development for non-small cell lung cancer. NOV-002 is intended for use in combination with chemotherapy to act as a chemoprotectant and an immunomodulator. Three separate Phase 2 trials demonstrated clinical activity and safety of NOV-002 in combination with chemotherapy in non-small cell lung cancer. In May 2006, we finalized a Special Protocol Assessment (SPA) with the FDA for a single pivotal Phase 3 trial in advanced non-small cell lung cancer in combination with first-line chemotherapy, and received Fast Track designation in August 2006. The primary endpoint of this trial is improvement in median overall survival. Patient enrollment commenced in November 2006 and targeted enrollment was reached in March 2008. We believe that results for this trial will be available in late 2009.

NOV-002 is also being developed to treat early-stage breast cancer. In June 2007 we commenced enrollment in a U.S. Phase 2 neoadjuvant breast trial, which is ongoing at The University of Miami and The Medical University of South Carolina to evaluate the ability of NOV-002 to enhance the effectiveness of chemotherapy. As presented at the San Antonio Breast Cancer Symposium (December 2008) six pathologic complete responses occurred in the first 15 women (40%) who have completed chemotherapy and undergone surgery, which is much greater than the less than 20% historical expectation in HER-2 negative patients. Furthermore, patients experienced decreased hematalogic toxicities.

NOV-002 is also being developed to treat chemotherapy-resistant ovarian cancer. In a U.S. Phase 2 chemotherapy-resistant ovarian cancer trial at Massachusetts General Hospital and Dana-Farber Cancer Institute from July 2006 through May 2008, NOV-002 (plus carboplatin) slowed progression of the disease in 60% of evaluable patients (nine out of 15 women). The median progression-free survival was 15.4 weeks, almost double the historical control of eight weeks. These results were presented at the American Society of Clinical Oncology in May 2008.

Based on results to-date, in 2009 we intend to initiate several Phase 2 trials with NOV-002 in cancers as well as chemotherapy-induced anemia. Our ability to initiate these trials, and the timing of such trials, will depend on available funding, principally from partnering arrangements or the issuance of debt or equity securities.

NOV-205, our second compound, is intended for use as a hepatoprotective agent with immunomodulating and anti-inflammatory properties. Our Investigational New Drug Application for NOV-205 as monotherapy for chronic hepatitis C has been accepted by the FDA. A U.S. Phase 1b clinical trial in patients who previously failed treatment with pegylated interferon plus ribavirin was completed in December 2007. Based on favorable safety results of that trial, we plan to initiate a longer duration, proof-of-concept trial in the event we obtain the additional funding necessary for that purpose. However, there can be no assurance that such funding will be available.

Both compounds have completed clinical trials in humans and have been approved for use in Russia, where they were originally developed. We own all intellectual property rights worldwide (excluding Russia and other states of the former Soviet Union) related to compounds based on oxidized glutathione, including NOV-002 and NOV-205. Our patent portfolio includes six U.S. issued patents, two European issued patents and one Japanese issued patent.

Private Placement and Exchange of Shares

On May 2, 2007, we completed a private placement of 300 shares of our Series B Convertible Preferred Stock and five-year warrants to purchase up to 7,500,000 shares of common stock with an initial exercise price of $1.25 per share. The shares of Series B preferred stock were convertible into an aggregate of 15,000,000 shares of common stock.

We received gross proceeds of $15,000,000 and net proceeds of approximately $13,700,000 (after deducting placement agents' fees and transaction costs) from this private placement.

On April 11, 2008, we completed a private placement of 113.5 shares of our Series D Convertible Preferred Stock and warrants to purchase up to 4,365,381 shares of our common stock with an exercise price of $0.65, expiring April 11, 2013. This sale was made to the existing group of Series B investors. The shares of Series D preferred stock were convertible into an aggregate of 8,730,755 shares of common stock. We received gross proceeds of $5,675,000 and net proceeds of approximately $5,470,000 (after deducting placement agent's fees and transaction costs) from this private placement. Upon the closing of the sale of Series D preferred stock, the holders of our existing Series B preferred stock exchanged all 300 shares of their Series B preferred stock for 300 shares of Series D preferred stock. Following the exchange, no shares of Series B Preferred Stock were outstanding. The purpose of the exchange was to facilitate the reduction in conversion price of the Series B preferred stock from $1.00 per share to $0.65 per share. Simultaneous with the closing of this private placement, we executed an amendment to the warrants to purchase 7,500,000 shares of common stock issued on May 2, 2007 to reduce the exercise price to $0.65 and extend the expiration date to April 11, 2013.

On February 11, 2009, we completed a private placement of 200 shares of our Series E Convertible Preferred Stock and warrants to purchase up to 9,230,769 shares of our common stock with an exercise price of $0.65, expiring December 31, 2015. This sale was made to a new investor. The shares of Series E preferred stock are convertible into an aggregate of 15,384,615 shares of common stock. We received gross proceeds of $10,000,000 and net proceeds of approximately $9,200,000 (after deducting advisor fees and transaction costs) from this private placement. Upon the closing of the sale of Series E preferred stock, the holders of our existing Series D preferred stock exchanged all 413.5 shares of their Series D preferred stock and accumulated but unpaid dividends thereon for 445.442875 shares of Series E preferred stock. Following the exchange, no shares of Series D Preferred Stock were outstanding. The purpose of the exchange was to enable the new investor to have the same rights and preferences as the prior Series D investors. Simultaneous with the closing of this private placement, we executed amendments to warrants to purchase 7,500,000 shares of common stock issued on May 2, 2007 and warrants to purchase 4,365,381 shares of common stock issued April 11, 2008 to extend the expiration date of the warrants to December 31, 2015.

As a result of the exchange transactions, the common stock being offered pursuant to this prospectus, previously issuable upon conversion of the Series B preferred stock, is now issuable upon conversion of the Series E preferred stock. We have agreed to file another registration statement, in August 2009, covering the shares issuable upon conversion of (i) the shares issuable upon conversion of the Series E preferred stock (excluding 12,000,000 shares of common stock issuable upon conversion of the Series E preferred stock included on this registration statement), (ii) 9,230,769 shares of common stock issuable upon exercise of the warrants issued on February 11, 2009 and (iii) 11,865,381 shares of common stock issuable upon exercise of warrants issued on May 2, 2007 and April 11, 2008.

Certain selling stockholders are offering up to 12,000,000 shares of our common stock issuable upon conversion of shares of our Series E Convertible Preferred Stock.

The Offering

Securities Offered:	12,000,000 shares of our common stock issuable upon conversion of shares of our Series E Convertible Preferred Stock
Use of Proceeds:	We will not receive any of the proceeds from the sale by any selling stockholder of common stock or the conversion of preferred stock.
Total Shares of our Common Stock Outstanding as of April 20, 2009:	43,975,656

Summary Financial Information

The following table provides selected financial and operating data for the periods indicated:

	Year Ended December 31,	
	2008	**2007**
Revenue	$ 125,968	$ –
Costs and expenses	16,716,985	20,294,187
Other income	139,611	737,052
Net loss	(16,451,406)	(19,557,135)
Net loss attributable to common stockholders	(22,960,823)	(29,721,338)
Current assets	1,392,237	11,059,501
Current liabilities	6,617,206	7,059,390
Total assets	1,466,038	11,107,660

Our principal executive offices are located at One Gateway Center, Suite 504, Newton, Massachusetts 02458 and our telephone number is (617) 244-1616.

RISK FACTORS

The following risk factors should be considered carefully in addition to the other information contained in this prospectus:

Risks Related to Our Business and Industry

The report from our independent registered public accounting firm included in this prospectus indicates that there is substantial doubt about whether we will be able to continue as a going concern.

The report from our independent registered public accounting firm included in this prospectus indicates that factors exist that raise substantial doubt about our ability to continue as a going concern. We believe that our funds at December 31, 2008, together with the net proceeds of approximately $9,200,000 from the sale of shares of our Series E preferred stock in February 2009 (see Note 10 to the financial statements), are adequate to continue operations at budgeted levels into late 2009. Our ability to execute our operating plan beyond late 2009 is dependent on our ability to obtain additional capital (including through the sale of equity and debt securities and by entering into collaborative arrangements for licensing rights in North America) to fund our development activities. We plan to pursue these alternatives during 2009, but there can be no assurance that we will obtain such additional capital. We anticipate that clinical results from our Phase 3 clinical trial in non-small cell lung cancer will be available in late 2009. The primary endpoint of the trial is increased median overall survival, to be measured following the occurrence of 725 events (deaths). The timing and content of those clinical results may affect our projected cash requirements and our ability to obtain capital. Furthermore, continuing adverse conditions in the capital markets globally may impair our ability to obtain funding in a timely manner. We are continuously evaluating measures to further reduce our costs to preserve existing capital. If we are unable to obtain sufficient additional funding, we will be required, beginning in late 2009, to scale back our administrative activities and clinical development programs, including the Phase 3 clinical development of our lead drug candidate, NOV-002, or we may have to cease our operations entirely.

We may have difficulty raising additional capital for our future operations.

We currently generate insignificant revenue from our proposed products or otherwise. We do not know when this will change. We have expended and will 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. Additional funds may not be available on acceptable terms, if at all. If adequate funding is not available to us, we may have to delay, reduce the scope of or eliminate one or more of our research or development programs or product launches or marketing efforts, which may materially harm our business, financial condition and results of operations.

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, including the results of our Phase 3 clinical trial expected in late 2009;
- 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;
- 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 otherwise 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 adequate funds are not available, we may be required to significantly reduce or refocus our development efforts with regard to our drug compounds. Currently, while we believe that we have available cash sufficient to meet our working capital requirements into late 2009, assuming our expense levels do not exceed our current plan and that we maintain a vendor payment cycle that is consistent with, or slightly longer than, our past practice. However, there can be no assurance that these assumptions are correct. Furthermore, if we do not generate revenues or raise additional capital, we will not be able to sustain our operations at existing levels once our current funds are exhausted.

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 United States and abroad. Before receiving FDA clearance to market our proposed products, 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. For each drug using oxidized glutathione-based compounds, including NOV-002 and NOV-205, we must successfully meet 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, hepatitis and other diseases; and
- anticipated expense and time believed to be associated with the development and regulatory approval of treatments for cancer, hepatitis 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 human consumption in the U.S. without FDA approval.

Data obtained from clinical trials is susceptible to varying interpretations, which could delay, limit or prevent regulatory clearances.

Data already obtained, or obtained in the future, from pre-clinical studies and clinical trials does not necessarily predict the results that will be obtained from later pre-clinical studies and clinical trials. Moreover, pre-clinical and clinical data is susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials, even after promising results in earlier trials. The failure to adequately demonstrate the safety and effectiveness of an intended product under development could delay or prevent regulatory clearance of the potential drug, which would result in delays to commercialization and could materially harm our business. Our clinical trials may not demonstrate sufficient levels of safety and efficacy necessary to obtain the requisite regulatory approvals for our drugs, and our proposed drugs may not be approved for marketing.

We may encounter delays or rejections based on additional government regulation from future legislation or administrative action or changes in FDA policy during the period of development, clinical trials and FDA regulatory review. We may encounter similar delays in foreign countries. Sales of our products outside the U.S. would be subject to foreign regulatory approvals that vary from country to country. The time required to obtain approvals from foreign countries may be shorter or longer than that required for FDA approval, and requirements for foreign licensing may differ from FDA requirements. We may be unable to obtain requisite approvals from the FDA or foreign regulatory authorities, and even if obtained, such approvals may not be on a timely basis, or they may not cover the uses that we request.

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.

Our drugs or technology may not gain FDA approval in clinical trials or be effective as a therapeutic agent, which could adversely affect our business and prospects.

In order to obtain regulatory approvals, we must demonstrate that each drug is safe and effective for use in humans and functions as a therapeutic against the effects of a disease or other physiological response. To date, studies conducted in Russia involving our NOV-002 and NOV-205 products have shown what we believe to be promising results. However, all of our Russian clinical studies were completed prior to 2000 and may not have been conducted in accordance with current guidelines either in Russia or in the United States. While we have experienced positive preliminary results in the earlier stage trials for certain indications in the U.S., there can be no assurance that we can demonstrate that these products are safe or effective in advanced clinical trials. We are also not able to give assurances that the results of the tests already conducted can be repeated or that further testing will support our applications for regulatory approval. As a result, our drug and technology research program may be curtailed, redirected or eliminated at any time. If this occurs, we may have to cease our operations entirely.

There is no guarantee that we will ever generate substantial revenue or become profitable even if one or more of our drugs are approved for commercialization.

We expect to incur operating losses over the next several years as we continue to incur costs for research and development and clinical trials. Our ability to generate revenue and achieve profitability depends on our ability, alone or with others, to complete the development of, obtain required regulatory approvals for and manufacture, market and sell our proposed products. Development is costly and requires significant investment. In addition, if we choose to license or obtain the assignment of rights to additional drugs, the license fees for such drugs may increase our costs.

To date, we have not generated any revenue from the commercial sale of our proposed products or any drugs and do not expect to receive any such revenue in the near future. Our primary activity to date has been research and development. A substantial portion of the research results and observations on which we rely were performed by third parties at those parties' sole or shared cost and expense. We cannot be certain as to when or whether commercialization and marketing our proposed products in development will occur, and we do not expect to generate sufficient revenues, from proposed product sales or otherwise, to cover our expenses or achieve profitability in the near future.

We rely solely on research and manufacturing facilities at various universities, hospitals, contract research organizations and contract manufacturers for all of our research, development, and manufacturing, which could be materially delayed should we lose access to those facilities.

At the present time, we have no research, development or manufacturing facilities of our own. We are entirely dependent on contracting with third parties to use their facilities to conduct research, development and manufacturing. The lack of 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 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 dependent on our collaborative arrangements for the development of our technologies and business development, exposing us to the risk of reliance on the viability of third parties.

In conducting our research, development and manufacturing activities, we rely and expect to continue to rely on numerous collaborative arrangements with universities, hospitals, governmental agencies, charitable foundations, manufacturers and others. The loss of any of these arrangements, or failure to perform under any of these arrangements, by any of these entities, may substantially disrupt or delay our research, development and manufacturing activities, including our anticipated clinical trials.

We may rely on third-party contract research organizations, service providers and suppliers to support development and clinical testing of our products. 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, financial condition and results of operations.

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, 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:

- the receipt of regulatory clearance of marketing claims for the uses that we are developing;
- the establishment and demonstration of 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 our 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 that involve licensing agreements, including ours, 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.

We have limited manufacturing experience. Even if our products are approved for manufacture and sale by applicable regulatory authorities, we may not be able to manufacture sufficient quantities at an acceptable cost, and our contract manufacturers could experience shut-downs or delays.

We remain in the research and development and clinical and pre-clinical trial phase of product commercialization. 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. We have limited experience in establishing, supervising and conducting commercial manufacturing. If we fail to adequately establish, supervise and conduct all aspects of the manufacturing processes, we may not be able to commercialize our products.

We presently plan to rely on third-party contractors to manufacture 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.

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 yet had to establish marketing, sales or distribution capabilities for our proposed products. Until such time as our products are further along in the regulatory process, we will not devote any meaningful time and resources to this effort. We intend to enter into agreements with third parties at the appropriate time to sell our products or we may develop our own sales and marketing force. However, 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.

If we do not enter into relationships with third parties for the sale and marketing of our products, we will need to develop our own sales and marketing capabilities. 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.

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 harm our financial results.

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.

Fluctuations in foreign exchange rates could increase costs to complete international clinical trial activities.

We are conducting a portion of our clinical trial activities in both Western and Eastern Europe. We anticipate that approximately 40% of the remaining Phase 3 clinical trial budget of approximately $4 million will be incurred in Euros. Significant depreciation in the value of the U.S. Dollar against principally the Euro could adversely affect our ability to complete the trials, particularly if we are unable to redirect funding or raise additional funds. Since the timing and amount of foreign-denominated payments are uncertain and dependent on a number of factors, it is difficult to cost-effectively hedge the potential exposure. Therefore, to date, we have not entered into any foreign currency hedges to mitigate the potential exposure.

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 new restrictive legislation is adopted, market acceptance of our products may be limited, which could limit revenue we might otherwise generate from sales of our products.

The continuing efforts of government and insurance companies, health maintenance organizations and other payers of healthcare costs to contain or reduce costs of health care 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. In the U.S., federal and state governments have focused and will likely continue to focus, on healthcare reform, including initiatives directed at lowering the total cost of health care and the cost of prescription pharmaceuticals, as well as other reforms of the Medicare and Medicaid systems. While we cannot predict whether any such legislative or regulatory proposals will be adopted, the announcement or adoption of such proposals could materially harm our business, financial condition and results of operations.

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 health care in the United States 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 health care or reduce 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 key management and advisors to us. There can be no assurance that these individuals will continue to provide service to us. In addition, our success will 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.

Compliance with changing corporate governance and public disclosure regulations may result in additional expense.

Keeping abreast of, and in compliance with, changing laws, regulations and standards relating to corporate governance, public disclosure and internal controls, including the Sarbanes-Oxley Act of 2002, new SEC regulations and, in the event we seek and are approved for listing on a registered national securities exchange, the stock exchange rules, will require an increased amount of management attention and external resources. We intend to continue to invest all resources reasonably necessary to comply with evolving standards, which may result in increased general and administrative expense and a diversion of management time and attention from revenue-generating activities to compliance activities. In our annual report for the fiscal year ending December 31, 2009 we will be required to include an attestation report of our independent registered public accounting firm on internal control over financial reporting which may result in additional costs.

Risks Related to our Common Stock

In the time that our common stock has traded, 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 bio-pharmaceutical sector or to our own business or prospects;
- regulatory, legislative, or other developments affecting us or the healthcare industry generally;
- the dilutive effect of conversion of our Series B or Series C preferred stock into common stock at conversion rates or the exercise of options and warrants at below-current-market prices;
- sales by those financing our company through convertible securities and warrants of the underlying common stock, when it is registered with the SEC and may be sold into the public market, immediately upon conversion or exercise; and
- market conditions specific to biopharmaceutical companies, the healthcare industry and the stock market generally.

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

In 2005 we filed applications for listing of our common stock on Archipelago and AMEX, but these applications were withdrawn primarily because our stock prices did not meet the listing requirements. Although we may reapply, there can be no assurance if and when initial listing criteria will be met or if such applications will be granted, or that the trading of our common stock will be sustained. In the event that our common stock fails to qualify for initial or continued listing on a registered stock exchange or for initial or continued inclusion in the NASDAQ system, trading, if any, in our common stock, would then continue to be conducted on the NASD's electronic bulletin board in the over-the-counter market and in what are commonly referred to as 'pink sheets'. 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.

Trading of our common stock may be subject to penny-stock rules under the Securities Exchange Act of 1934. Unless exempt, for any transaction involving a penny-stock, the regulations require broker-dealers making a market in our common stock to provide risk disclosure to their customers including regarding the risks associated with our common stock, the suitability for the customer of an investment in our common stock, the duties of the broker-dealer to the customer, information regarding prices for our common stock and any compensation the broker-dealer would receive. The application of these rules may result in fewer market makers in our common stock. Our common stock is presently subject to the rules on penny-stocks, and the liquidity of our common stock could be materially adversely affected so long as we remain subject to such rule.

Our executive officers, directors and principal stockholders have substantial holdings, which could delay or prevent a change in corporate control favored by our other stockholders.

Our directors, officers and holders of our Series E preferred stock beneficially own, in the aggregate, approximately 56% of our outstanding voting shares, subject to certain blocking provisions that may be waived with 61 days notice. The interests of our current officers, directors and Series E investors may differ from the interests of other stockholders. Further, our current officers, directors and Series E investors may 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;
- issuance of blank-check preferred or convertible stock, notes or instruments of indebtedness which may have conversion, liquidation and similar features, or completion of other financing arrangements; or
- the approval of certain mergers and other significant corporate transactions, including a sale of substantially all of our assets, or merger with a publicly-traded shell or other company.

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 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 conversion and exercise 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 conversion or exercise prices of outstanding preferred stock and warrants (resulting in these securities becoming convertible into or 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.

We are prohibited from taking certain actions and entering into certain transactions without the consent of holders of our Series E preferred stock.

For as long as any shares of Series E Preferred Stock remain outstanding we are prohibited from taking certain actions or entering into certain transactions without the prior consent of specific holders of outstanding shares of Series E preferred stock (currently consisting of Xmark Opportunity Partners, OrbiMed Advisors LLC and Purdue Pharma L.P.). We are prohibited from paying dividends to common stockholders, amending our certificate of incorporation, issuing any equity security or any security convertible into or exercisable for any equity security at a price of $0.65 or less or with rights senior to the Series E Preferred Stock (except for certain exempted issuances), increasing the number of shares of Series E Preferred Stock or issuing any additional shares of Series E Preferred Stock other than the 735 shares designated in the Series E Certificate of Designations, or changing the number of our directors. We are also prohibited from entering into certain transactions such as:

- selling or otherwise disposing of all or substantially all of our assets (and in the case of licensing, any material intellectual property) or entering into a merger or consolidation with another company unless we are the surviving corporation, the Series E Preferred Stock remains outstanding and there are no changes to the rights and preferences of the Series E Preferred Stock;
- redeeming or repurchasing any capital stock other than Series E Preferred Stock; or
- incurring any new debt for borrowed money in excess of $500,000.

Even though our board of directors may determine that any of these actions are in the best interest of the Company or our shareholders, we may be unable to complete them if we do not get the approval of specific holders of the outstanding shares of Series E Preferred Stock. The interests of the holders of Series E preferred stock may differ from those of stockholders generally. Moreover, the relationship of Purdue Pharma with Mundipharma (our collaborator on most non-U.S. development, manufacturing and commercialization of NOV-002) has the potential of creating situations where the interests of the Company and those of Purdue Pharma may conflict. If we are unable to obtain consent from each of the holders identified above, we may be unable to complete actions or transactions that our board of directors has determined are in the best interest of the Company and its shareholders.

We were unable to pay dividends to our preferred stockholders on June 30, 2008, September 30, 2008 and December 31, 2008, we do not expect to be able to pay dividends to preferred stockholders on March 31, 2009, and we may be unable to pay dividends to preferred stockholders when due in future periods.

As a result of continuing losses during 2008, we did not have legally available funds for the payment of dividends under Delaware corporate law. Accordingly, we were unable to pay dividends totaling $1,689,323 that were accrued in respect of the Series D and Series C preferred stock as of December 31, 2008. All outstanding shares of our Series D preferred stock (and rights associated therewith, including accrued but unpaid dividends) were exchanged for shares of Series E preferred stock on February 11, 2009. Our ability to pay cash dividends on stated future dividend payment dates will be dependent on a number of factors including the timing of future financings and the amount of net losses in future periods. We anticipate that future dividends on Series E preferred stock will be paid by issuing shares of common stock or additional shares of Series E preferred stock, which will result in additional dilution to existing shareholders. We anticipate that the accrued unpaid dividend on our Series C preferred stock will continue to accumulate.

FORWARD-LOOKING STATEMENTS

Except for historical facts, the statements in this prospectus are forward-looking statements. Forward-looking statements are merely our current predictions of future events. These statements are inherently uncertain, and actual events could differ materially from our predictions. Important factors that could cause actual events to vary from our predictions include those discussed under the headings “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” We assume no obligation to update our forward-looking statements to reflect new information or developments. We urge readers to review carefully the risk factors described in this prospectus and the other documents that we file with the Securities and Exchange Commission. You can read these documents at *www.sec.gov* .

WE UNDERTAKE NO OBLIGATION TO PUBLICLY UPDATE OR REVISE ANY FORWARD-LOOKING STATEMENTS WHETHER AS A RESULT OF NEW INFORMATION, NEW EVENTS OR ANY OTHER REASON, OR REFLECT ANY EVENTS OR CIRCUMSTANCES AFTER THE DATE OF THIS PROSPECTUS OR THE DATE OF ANY APPLICABLE PROSPECTUS SUPPLEMENT THAT INCLUDES FORWARD-LOOKING STATEMENTS.

USE OF PROCEEDS

The selling stockholders will receive all of the proceeds from the sale of the shares offered for sale by them under this prospectus. We will not receive any proceeds from the resale of shares by the selling stockholders covered by this prospectus.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Market Information

Our common stock has been quoted on the OTC Electronic Bulletin Board of The National Association of Securities Dealers, Inc. under the symbol “NVLT.OB” since June 14, 2005. The following table provides, for the periods indicated, the 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 2007	High	Low
First quarter	$ 1.24	$ 0.85
Second quarter	1.40	0.82
Third quarter	0.90	0.45
Fourth quarter	0.67	0.43

Fiscal Year 2008	High	Low
First Quarter	$ 0.82	$ 0.43
Second Quarter	0.64	0.44
Third Quarter	0.54	0.35
Fourth Quarter	0.49	0.19

On April 20, 2009 there were 89 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 are prohibited from paying any dividends on common stock as long as any shares of our Series E preferred stock are outstanding or as long as there are accumulated but unpaid dividends on our Series C preferred stock. 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.

MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION

Overview

We are a biopharmaceutical company, established in 1996, commercializing oxidized glutathione-based compounds for the treatment of cancer and hepatitis.

NOV-002, our lead compound, is currently in Phase 3 development for non-small cell lung cancer. NOV-002 is intended for use in combination with chemotherapy to act as a chemoprotectant and an immunomodulator. Three separate Phase 2 trials demonstrated clinical activity and safety of NOV-002 in combination with chemotherapy in non-small cell lung cancer. In May 2006, we finalized a Special Protocol Assessment (SPA) with the FDA for a single pivotal Phase 3 trial in advanced non-small cell lung cancer in combination with first-line chemotherapy, and received Fast Track designation in August 2006. The primary endpoint of this trial is improvement in median overall survival. Patient enrollment commenced in November 2006 and targeted enrollment was reached in March 2008. We believe that results for this trial will be available in late 2009.

NOV-002 is also being developed to treat early-stage breast cancer. In June 2007 we commenced enrollment in a U.S. Phase 2 neoadjuvant breast trial, which is ongoing at The University of Miami and The Medical University of South Carolina to evaluate the ability of NOV-002 to enhance the effectiveness of chemotherapy. As presented at the San Antonio Breast Cancer Symposium (December 2008) six pathologic complete responses occurred in the first 15 women (40%) who have completed chemotherapy and undergone surgery, which is much greater than the less than 20% historical expectation in HER-2 negative patients. Furthermore, patients experienced decreased hematalogic toxicities.

NOV-002 is also being developed to treat chemotherapy-resistant ovarian cancer. In a U.S. Phase 2 chemotherapy-resistant ovarian cancer trial at Massachusetts General Hospital and Dana-Farber Cancer Institute from July 2006 through May 2008, NOV-002 (plus carboplatin) slowed progression of the disease in 60% of evaluable patients (nine out of 15 women). The median progression-free survival was 15.4 weeks, almost double the historical control of eight weeks. These results were presented at the American Society of Clinical Oncology in May 2008.

Based on results to-date, in 2009 we intend to initiate several Phase 2 trials with NOV-002 in cancers as well as chemotherapy-induced anemia. Our ability to initiate these trials, and the timing of such trials, will depend on available funding, principally from collaborative arrangements or the issuance of debt or equity securities.

NOV-205, our second compound, is intended for use as a hepatoprotective agent with immunomodulating and anti-inflammatory properties. Our Investigational New Drug Application for NOV-205 as monotherapy for chronic hepatitis C has been accepted by the FDA. A U.S. Phase 1b clinical trial in patients who previously failed treatment with pegylated interferon plus ribavirin was completed in December 2007. Based on favorable safety results of that trial, we plan to initiate a longer duration, proof-of-concept trial in the event we obtain the additional funding necessary for that purpose. However, there can be no assurance that such funding will be available.

Both compounds have completed clinical trials in humans and have been approved for use in Russia, where they were originally developed. We own all intellectual property rights worldwide (excluding Russia and other states of the former Soviet Union) related to compounds based on oxidized glutathione, including NOV-002 and NOV-205. Our patent portfolio includes six U.S. issued patents, two European issued patents and one Japanese issued patent.

Results of Operations

Revenue. Revenue consists of amortization of upfront license fees received in connection with partner agreements and income received from a grant from the U.S. Department of Health and Human Services.

Research and development expense. Research and development expense consists of costs incurred in identifying, developing and testing product candidates, which primarily consist of salaries and related expenses for personnel, fees paid to professional service providers for independent monitoring and analysis of our clinical trials, costs of contract research and manufacturing and costs to secure intellectual property. We are currently developing two proprietary compounds, NOV-002 and NOV-205. To date, most of our research and development costs have been associated with our NOV-002 compound.

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 facility costs, insurance, costs for public and investor relations, directors' fees and professional fees for legal and accounting services

Years Ended December 31, 2008 and 2007

Revenue. During the year ended December 31, 2008 we recognized $33,000 in license fees in connection with our collaboration with Lee's Pharmaceutical (HK) Ltd. ("Lee's Pharma"), which commenced in December 2007. Under the terms of our agreement with Lee's Pharma, the Company received an upfront license fee of $500,000 in March 2008 and is entitled to receive up to $1,700,000 in future milestone payments upon the completion of development and marketing milestones by Lee's Pharma. The $500,000 initial payment received is being amortized over the estimated term of the agreement, 15 years. During the year ended December 31, 2008, we also recognized $93,000 in grant revenue related to a grant received from the U.S. Department of Health and Human Services. The related costs are included as a component of research and development expense.

Research and Development. Research and development expense for the year ended December 31, 2008 was $14,527,000, compared to $17,428,000 for the year ended December 31, 2007. The $2,901,000, or 17%, decrease in research and development expense was due to a combination of factors. In March 2008, we reached the enrollment target for our Phase 3 clinical trial of NOV-002, and an increasing number of patients completed their treatment regimen throughout 2008. As a result, certain clinical costs have leveled out or declined. The cost of the chemotherapy drug to be provided to patients at clinical sites in Europe decreased by $1,669,000. Clinical investigator expenses, which are affected by the number of patients that remain on treatment, decreased by $952,000. Drug manufacturing and distribution costs (including storing and shipping chemotherapy drug) decreased by $777,000. Salaries and related costs increased $385,000, principally from the hiring of additional personnel in late 2007 and early 2008 as well as salary increases that were effective at the beginning of 2008. Overhead costs such as travel and postage increased by $130,000.

General and Administrative. General and administrative expense for the year ended December 31, 2008 was $2,190,000, compared to $2,866,000 for the year ended December 31, 2007. The $676,000, or 24%, decrease in general and administrative expense was due principally to a $799,000 decrease in accrued expense for potential liquidated damages associated with registration rights agreements. We had accrued an estimate for such damages in 2007 and those damages were then waived in connection with the sale of Series D Preferred Stock during 2008 (see Note 4). Stock-based compensation also decreased by $53,000 in the year ended December 31, 2008 compared to the prior year. These decreases were partially offset by a $144,000 increase in professional fees, principally those related to partnering and investor activities and a $32,000 increase in salary, directors fees and overhead.

Interest Income. Interest income for the year ended December 31, 2008 was $131,000 compared to $730,000 for the same period in 2007. This decrease is a result of lower cash balances as well as a decline in prevailing interest rates.

Preferred Stock Dividends. During the year ended December 31, 2008 we paid cash dividends to Series B and C preferred stockholders of $740,000 and accrued $1,689,000 of dividends due to our Series C and D preferred stockholders. The accrued dividends were not paid because we did not have legally available funds for the payment of dividends under Delaware corporate law. In February 2009, all outstanding shares of Series D preferred stock and associated rights, including accrued dividends totaling $1,597,000 ($1,396,000 of which had accrued at December 31, 2008) were exchanged for 445.442875 shares of Series E preferred stock. During the year ended December 31, 2008 we also recorded deemed dividends to preferred stockholders totaling $4,417,000. This amount represents the value attributed to the reduction in exercise and conversion prices of the warrants and preferred stock issued in May 2007 in connection with the financing that occurred in April 2008, as described in Note 4 to the financial statements.

The deemed dividends, cash dividends and accrued dividends have been included in the calculation of net loss attributable to common stockholders of $22,961,000, or $0.56 per share, for the year ended December 31, 2008. The deemed dividends and cash dividends are excluded from our net loss (from operating activities) of $16,451,000 or $0.40 per share, for the year ended December 31, 2008.

During the year ended December 31, 2007 we paid cash dividends to Series A and C preferred stockholders of $261,000 and dividends of $563,000 to Series B preferred stockholders. An additional $337,000 of dividends were declared and accrued but not paid to Series B preferred stockholders. During the year ended December 31, 2007 we also recorded deemed dividends to preferred stockholders totaling $9,003,000 (including a payment of $40,000 made upon the exchange of Series A for Series C preferred shares). This amount represents the value attributed to the beneficial conversion feature of the Series B convertible preferred stock of $7,824,000 and the fair value of warrants and cash of $1,179,000 transferred to the former Series A preferred stockholders in connection with the exchange of their shares for shares of Series C preferred stock that were subordinated to the Series B shares. The deemed dividends and cash dividends have been included in the calculation of net loss attributable to common stockholders of $29,721,000, or $0.76 per share, for the year ended December 31, 2007. The deemed dividends and cash dividends are excluded from our net loss (from operating activities) of $19,557,000 or $0.50 per share, for the year ended December 31, 2007.

Liquidity and Capital Resources

We have financed our operations since inception through the sale of securities and the issuance of debt (which was subsequently paid off or converted into equity). As of December 31, 2008, we had $1,262,000 in cash and equivalents.

During the year ended December 31, 2008, approximately $17,332,000 in cash was used in operations, primarily due to a net loss of $16,451,000, a net decrease of $1,827,000 in accounts payable and accrued liabilities and a $3,000 increase in other current assets. Deferred revenue increased by $467,000 as a result of a payment received in connection with a licensing arrangement (net of revenue recognized under the arrangement during the year). The cash impact of the loss was offset by non-cash stock-based compensation expense of $453,000 and depreciation, amortization and loss on disposal of fixed assets totaling $23,000. During the year ended December 31, 2008, cash of approximately $1,136,000 was provided by investing activities resulting from the release of restrictions on $1,185,000 of cash that had been previously restricted in connection with a standby letter of credit, offset by payments of $49,000 to purchase fixed assets.

During the year ended December 31, 2008, we received net proceeds of $5,470,000 from the sale of our Series D Preferred stock (see Note 4 to the financial statements), net proceeds of $2,987,000 from the sale of common stock and proceeds of $1,000 from the exercise of stock options. We paid dividends totaling $740,000 to our Series B and Series C preferred stockholders.

We believe that we have adequate funds at December 31, 2008, including the proceeds from the sale of Series E preferred stock in February 2009 (see Note 10 to the financial statements), to continue operations at budgeted levels into late 2009. Our ability to execute our operating plan beyond late 2009 is dependent on our ability to obtain additional capital (including through the sale of equity and debt securities and by entering into collaborative arrangements for licensing rights in North America) to fund our development activities. We plan to pursue these alternatives during 2009, but there can be no assurance that we will obtain the additional capital necessary to fund our business beyond late 2009. We anticipate that clinical results from our Phase 3 clinical trial in non-small cell lung cancer will be available in late 2009. The primary endpoint of the trial is increased median overall survival, to be measured following the occurrence of 725 events (deaths). The timing and content of those clinical results may impact our projected cash requirements and our ability to obtain capital. Furthermore, continuing adverse conditions in the capital markets globally may affect our ability to obtain funding in a timely manner. We are continuously evaluating measures to further reduce our costs to preserve existing capital. If we are unable to obtain sufficient additional funding, we will be required, beginning in late 2009, to scale back our administrative activities and clinical development programs, including the Phase 3 clinical development of our lead drug candidate, NOV-002, or we may be required to cease operations entirely.

Critical Accounting Policies

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States (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 contract manufacturers in conjunction with the production 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 generally accepted accounting principles.

Stock-based Compensation. We account for stock-based compensation in accordance with Statement of Financial Accounting Standards (SFAS) 123R, *Share-Based Payment*, or SFAS 123R. SFAS 123R requires measurement of 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, in accordance with SFAS 123 and the Emerging Issues Task Force (EITF) Issue 96-18, *Accounting for Equity Instruments That Are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, or EITF 96-18.

Accounting for equity instruments granted or sold by us under SFAS 123R and EITF 96-18 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.

BUSINESS

Overview

We were incorporated in June 1996 as AVAM International, Inc. In October 1998, Novelos Therapeutics, Inc., a newly incorporated entity, merged into AVAM, and the name of AVAM was changed to Novelos Therapeutics, Inc. In 2005, we completed a two-step reverse merger with Common Horizons, Inc., and its wholly-owned subsidiary Nove Acquisition, Inc. Following the merger, the surviving corporation was Novelos Therapeutics, Inc.

We are a biopharmaceutical company commercializing oxidized glutathione-based compounds for the treatment of cancer and hepatitis. NOV-002, our lead compound, is currently in Phase 3 development for treatment of lung cancer under a Special Protocol Assessment and Fast Track. NOV-002 is also in Phase 2 development for treatment of early-stage breast cancer and chemotherapy-resistant ovarian cancer. In February 2009, Novelos entered into a collaboration with Mundipharma International Corporation Limited ("Mundipharma") to develop, manufacture and commercialize NOV-002 in Europe and Japan. NOV-205, our second compound, is in Phase 1b development for the treatment of chronic hepatitis C in non-responders. Both compounds have been licensed to Lee's Pharmaceutical (HK) Ltd. ("Lee's Pharma") for development, manufacturing and commercialization in China.

NOV-002, our lead compound, acts together with chemotherapy as a chemoprotectant and a chemopotentiator. Three separate Phase 2 trials demonstrated clinical activity and safety of NOV-002 in combination with chemotherapy in non-small cell lung cancer. In May 2006, we finalized a Special Protocol Assessment (SPA) with the U.S. Food and Drug Administration (FDA) for a single pivotal Phase 3 trial in non-small cell lung cancer and obtained Fast Track designation in August 2006. The primary endpoint of this trial is improvement in median overall survival. We commenced patient enrollment in November 2006 and reached our enrollment target of 840 patients in March 2008. We expect that the results of this trial will be available in late 2009.

NOV-002 is also being developed to treat early-stage breast cancer. In June 2007 we commenced enrollment in a U.S. Phase 2 neoadjuvant breast trial, which is ongoing at The University of Miami and The Medical University of South Carolina to evaluate the ability of NOV-002 to enhance the effectiveness of chemotherapy. As presented at the San Antonio Breast Cancer Symposium in December 2008, six pathologic complete responses occurred in the first 15 women (40%) who have completed chemotherapy and undergone surgery, which is much greater than the less than 20% historical expectation in HER-2 negative patients. Furthermore, patients experienced decreased hematalogic toxicities.

NOV-002 is also being developed to treat chemotherapy-resistant ovarian cancer. In a U.S. Phase 2 chemotherapy-resistant ovarian cancer trial conducted at Massachusetts General Hospital and Dana-Farber Cancer Institute from July 2006 through May 2008, NOV-002 (plus carboplatin) slowed progression of the disease in 60% of evaluable patients (9 out of 15 women). The median progression-free survival was 15.4 weeks, almost double the historical control of 8 weeks. These results were presented at the American Society of Clinical Oncology in May 2008.

Based on results to date, we intend to initiate several Phase 2 trials with NOV-002 in cancers as well as chemotherapy-induced anemia. Our ability to initiate these trials in 2009 will depend on available funding, principally from partnering arrangements or the issuance of debt or equity securities.

NOV-205, our second compound, acts as a hepatoprotective agent with immunomodulating and anti-inflammatory properties. Our Investigational New Drug Application for NOV-205 as monotherapy for chronic hepatitis C has been accepted by the FDA. A U.S. Phase 1b clinical trial in patients who previously failed treatment with pegylated interferon plus ribavirin was completed in December 2007. Based on favorable safety results of that trial, we plan to initiate a longer duration, proof-of-concept trial in the event we obtain the additional funding necessary for that purpose. However, there can be no assurance that such funding will be available.

Both compounds have completed clinical trials in humans and have been approved for use in Russia, where they were originally developed. We own all intellectual property rights worldwide (excluding Russia and other states of the former Soviet Union) related to compounds based on oxidized glutathione, including NOV-002 and NOV-205.

Our intellectual property portfolio of issued patents includes six U.S. patents, two European patents and one Japanese patent. Overall, we have filed more than thirty patent applications worldwide, with coverage including composition of matter, method of use and manufacturing. We believe that the breadth of our intellectual property will allow us to expand our product pipeline by claiming and commercializing additional compounds that are based on oxidized glutathione.

Business Strategy

Our primary objective is to fully exploit our proprietary scientific and intellectual property portfolio in oxidized glutathione-based therapeutics. NOV-002, currently in Phase 3 development in the U.S. and Europe, has demonstrated an excellent safety and efficacy profile in Russia as a combination treatment with chemotherapy for many different cancers particularly in non-small cell lung cancer, an indication with large and growing unmet medical needs. For example, according to a 1996-1998 Russian non-small cell lung cancer trial, NOV-002 increased the one-year survival rate from 17% to 63% ($p<0.01$) when used in combination with chemotherapy. This result represented an 80% improvement over the U.S. survival rate of 35% that results from the current standard of care. Positive results in a controlled U.S-based Phase 1/2 non-small cell lung cancer study completed in August 2005 were consistent with the positive results obtained in earlier Russian clinical studies.

We intend to obtain a U.S marketing partner for NOV-002 after the non-small cell lung cancer Phase 3 clinical trial results are available (expected late-2009). In February 2009, we entered into a collaboration with Mundipharma under which we granted Mundipharma exclusive rights to develop, manufacture and commercialize NOV-002 in Europe and Japan. In December 2007 we entered into a collaboration agreement with Lee's Pharma (which is 30% owned by Sigma-Tau Group) under which we granted Lee's Pharma exclusive rights to develop, manufacture and commercialize NOV-002 for cancer and NOV-205 for hepatitis in China, Hong Kong, Macau and Taiwan.

In legacy Russian clinical studies, NOV-205 has demonstrated the ability to substantially decrease the serum viral load of patients with either hepatitis B or C as well as to restore normal liver function as evidenced by blood biochemical markers. In the U.S., both hepatitis B and C are relatively large markets, but hepatitis B is reasonably well served. Therefore, we intend to concentrate clinical development efforts on chronic hepatitis C, which we believe represents a more direct path to regulatory approval and has the potential to provide patients with an improved therapy regimen compared to those currently available. In December 2007, based on a favorable safety profile, we concluded a U.S. Phase 1b clinical trial for the treatment of chronic hepatitis C in non-responders. We plan to commence a proof-of-concept trial in the event we obtain the additional funding necessary for that purpose. However, there can be no assurance that such funding will be available. In the event that we are able to complete this trial successfully, we intend to explore licensing opportunities with third parties for the development, manufacture and commercialization of NOV-205.

Technology Overview

Glutathione is a naturally occurring substance present in nearly all cells of the body. The glutathione pathway consists of oxidized glutathione, the primary component of NOV-002 and NOV-205, and associated metabolic enzymes. It is considered within the medical research community to be the most important cellular system for protection against the toxic effects of a variety of cell-damaging molecules. More recently, it has become evident that in addition to this cell-protective role, a key function of the glutathione system is to dynamically regulate cell function by reversibly altering the structure of proteins via a process termed glutathionylation. The resulting activation/inhibition of protein function is analogous to the much-studied role of protein phosphorylation as a cellular regulatory mechanism.

Protein S-glutathionylation attendant to cellular redox changes at the cell surface and intracellularly are known to affect a variety of critical cell functions, including:

- Cell signaling pathways
- Cytoskeletal structure/function
- Protein folding/stability
- Calcium homeostasis
- Energy metabolism
- Redox homeostasis

In addition, changes in the ratio of reduced to oxidized forms of glutathione (GSH/GSSG) can modulate protein phosphorylation in signal pathways, further amplifying the impact of redox changes on cell function. Examples of redox-sensitive gene expression include regulation of gene transcription factors such as NFkB and AP-1, which have been shown to have pivotal roles in the regulation of many genes involved in immune and inflammatory responses, including cytokines and growth factors. The activities of other immune/inflammation regulatory proteins are also sensitive to GSH/GSSG (e.g., mitogen-activated protein kinases, or MAPKs) as are elements of the cytoskeleton (e.g., actin) that control interaction and communication between the cells and their surrounding environment (e.g., extracellular matrix) and cell surface proteins (e.g., protein disulfide isomerase, or PDI), which have been implicated in the modulation of tumor cell invasiveness and metastasis.

Importantly, it has been shown that oxidized glutathione itself is capable of causing protein glutathionylation, leading to changes in cell signaling pathway function. Thus, GSSG, or NOV-002, added to cells can result in a rapid, transient alteration of cell surface or intracellular redox state by shifting the equilibrium towards the formation of mixed disulfides with protein thiols. This is accompanied by glutathionylation of cellular proteins and alterations in phosphorylation of signaling proteins (e.g., MAPKs, AKT, JAK2, STAT5).

Findings with NOV-002 and NOV-205 in animals and humans are consistent with a variety of known effects of modulating cellular redox status (e.g., blood precursor cell proliferation (hematopoiesis)), modulation of cytokine and growth factor production (including those known to control production of blood cells), immune system modulation, and cytoskeletal alterations that may impact the migration and invasiveness of tumor cells. Identification of the precise molecular targets of the GSSG component of NOV-002 and NOV-205, which would account for their clinical effects, is the subject of ongoing study.

Products in Development

Our current developmental pipeline of drugs is based on oxidized glutathione, a natural metabolite that has shown excellent safety as well as clinical efficacy in numerous cancers, hepatitis B and C, HIV, psoriasis, tuberculosis and certain other diseases. The lead products are believed to act via modulation of critical regulatory molecules that mediate immune function, tumor progression (in combination with chemotherapy), and drug detoxification.

NOV-002

NOV-002 is an injectable, small-molecule formulation of a natural metabolite that is currently being developed for use in combination with chemotherapy for treatment of lung, breast and ovarian cancers.

NOV-002 for Non-Small Cell Lung Cancer

In the U.S., NOV-002 is in Phase 3 development for treatment of non-small cell lung cancer under a Special Protocol Assessment with Fast Track designation. NOV-002 is approved in Russia for general medicinal usage as an immunostimulant in combination with chemotherapy and antimicrobial therapy, and specifically for indications such as tuberculosis and psoriasis. Efficacy and excellent safety have been demonstrated in trials with 390 patients in Russia across numerous types of cancer including non-small cell lung cancer, breast cancer, ovarian cancer, colorectal cancer and pancreatic cancer. Since the Russian Ministry of Health approval in 1998, it is estimated that NOV-002 has been administered to over 10,000 patients.

According to the American Cancer Society, about 1.44 million U.S. men and women were expected to be diagnosed with cancer in 2008. Over 566,000 U.S. cancer patients were expected to die in 2008, which makes cancer the second leading cause of death in the U.S., exceeded only by deaths related to heart disease. Lung cancer is the leading cause of cancer death in the U.S. According to the American Cancer Society, approximately 215,000 people were expected to be diagnosed with lung cancer in 2008 in the U.S., with approximately 162,000 deaths. According to the American Cancer Society, approximately 1,500,000 new cases of lung cancer were expected worldwide in 2007 and approximately 1,350,000 deaths were projected from lung cancer in 2007. According to a Rodman and Renshaw report dated December 2006, the pharmaceutical market for treating lung cancer was approximately $800 million per year in the U.S. and $1.8 billion worldwide, expected to grow to greater than $8 billion worldwide by 2011. Non-small cell lung cancer accounts for more than 80% of lung cancer. Only about 15% of non-small cell lung cancer patients are diagnosed early enough to be eligible for surgery.

Platinum-based chemotherapy regimens are standard first-line treatment for advanced non-small cell lung cancer patients, since these patients are not eligible for surgery. Carboplatin and paclitaxel are the most common combination therapy in the U.S., while cisplatin and gemcitabine are more common in Europe. During treatment, patients continue to be subject to serious adverse effects. According to December 2003 Credit Suisse First Boston and UBS reports and Phase 3 clinical trials conducted as recently as 2005, the one-year survival rate for first-line therapy is typically only about 35%, median survival is approximately 8.5 months and the objective tumor response (defined as greater than 50% tumor shrinkage) rate is about 20%. Overall, fewer than 5% of advanced non-small cell lung cancer patients survive five years. Docetaxel is approved for use as second-line treatment of non-small cell lung cancer. New dosing regimens with existing cytotoxic drugs are likely to provide only incremental improvements in efficacy and/or safety, and are very expensive. Similarly, emerging targeted biologic therapies, such as Astra Zeneca's IRESSA®, OSI's TARCEVA®, Genentech's AVASTIN® and ImClone's ERBITUX®, may offer some benefit for certain patient subpopulations, but overall efficacy has remained low. Moreover, there are significant safety concerns and the costs to manufacture are very high. Thus, there is an unmet need for efficacious, and cost-effective, treatments for non-small cell lung cancer, particularly for late- stage patients.

NOV-002 can be distinguished from other drugs for non-small cell lung cancer on the market or in development because, based on available data, NOV-002 possesses the key attributes of safety, improved recovery from chemotherapy toxicity, potentiation of chemotherapy (increased survival rates and better anti-tumor effects) and low cost of manufacture. In a controlled randomized U.S. Phase 1/2 clinical trial, advanced non-small cell lung cancer patients treated with NOV-002 in combination with paclitaxel and carboplatin demonstrated improved objective tumor response (69% of the patients treated with NOV-002 plus chemotherapy had 50% or greater tumor shrinkage versus only 33% of the patients treated with chemotherapy alone, $p<0.05$) and higher tolerance of chemotherapy versus the control group ($p<0.01$). In a controlled randomized Russian trial, when used in combination with cisplatin-based chemotherapy, NOV-002 increased the one-year survival of advanced non-small cell lung cancer patients from 17% to 63%, $p<0.01$ (versus 35% typical in the U.S.). On the basis of U.S. and Russian data, we believe that NOV-002 may be used in combination with first-line chemotherapy treatments and may be complementary to second-line and recently emerging third-line products. Furthermore, we believe that NOV-002 may have utility in all stages of non-small cell lung cancer and in other solid tumor types as well.

The Russian non-clinical and clinical data set (which includes clinical safety and efficacy data, extensive animal toxicology studies and a comprehensive chemistry and manufacturing package) was accepted by the FDA as the basis of an Investigational New Drug (IND) application, leading to a Novelos-sponsored Phase 1/2 clinical trial in advanced non-small cell lung cancer in late 1999. The aim of the Phase 1/2 clinical trial was to demonstrate safety, detect trends towards efficacy, compare routes of administration and support initiation of a Phase 3 trial. We finalized a Special Protocol Assessment with the FDA in May 2006 for a single pivotal Phase 3 trial in advanced non-small cell lung cancer in combination with first-line chemotherapy, and obtained Fast Track designation in August 2006. The primary endpoint of this trial is improvement in median overall survival, and we reached our enrollment target of 840 patients in March 2008. We expect the pivotal Phase 3 trial to conclude in late 2009.

In the U.S. Phase 1/2 non-small cell lung cancer clinical trial of NOV-002, 44 chemotherapy-naive late-stage lung cancer patients (i.e. patients who had not received prior chemotherapy) were randomized to one of three groups for six months of treatment as follows:

- Group A: NOV-002, administered intravenously and intramuscularly, in combination with cytotoxic chemotherapy (carboplatin with paclitaxel);
- Group B: NOV-002, administered intravenously and subcutaneously, in combination with cytotoxic chemotherapy; and
- Group C: Cytotoxic chemotherapy alone was administered to this control group.

Based on the study protocol, the intent-to-treat analysis of the best overall objective tumor response (i.e., complete or partial tumor shrinkage) showed the following:

- Six out of 13 (46%) patients in Group A demonstrated objective tumor response;
- 11 out of 16 (69%) patients in Group B demonstrated objective tumor response; and
- five out of 15 (33%) in Group C, the control group, demonstrated objective tumor response.

The difference in objective tumor response between Groups B and Group C (69% versus 33%) was statistically significant ($p=0.044$).

Further, NOV-002-treated patients (i.e., Group A and Group B) better tolerated cytotoxic chemotherapy as evidenced by their ability to receive more cycles of chemotherapy compared to the control group (Group C). 100% of patients in Group B and 85% of patients in Group A were able to complete four cycles of chemotherapy, while only 50% of control group patients in Group C were able to do so. The differences between treated versus control groups was statistically significant ($p=0.004$).

In St. Petersburg, Russia, a multi-center, randomized, open-label study was conducted during 1996-1998 to evaluate the safety and efficacy of NOV-002 in patients with advanced non-small cell lung cancer. In this study, patients receiving NOV-002 in combination with chemotherapy had a significantly increased one-year survival rate over the control group (63% treated group vs. 17% control, $p<0.01$). In addition, ability to conduct daily activities, quality of life, tolerance to chemotherapy, hematologic parameters and kidney/liver toxicity markers appeared to improve or normalize in patients receiving NOV-002 in comparison to those in the control group. As in the U.S. Phase 1/2 trial, patients receiving NOV-002 were able to receive significantly more cycles of chemotherapy ($p<0.01$). Importantly, no NOV-002-associated adverse effects were observed. In addition, in an independent study in advanced non-small cell lung cancer study of similar design in Moscow in 2000, 52% of the patients treated with NOV-002 survived for at least one year.

NOV-002 for Neoadjuvant Treatment of Breast Cancer

We are also developing NOV-002 to treat early-stage breast cancer in combination with chemotherapy. These patients are often treated with chemotherapy to minimize surgical intervention. A U.S. Phase 2 trial to evaluate the ability of NOV-002 to enhance the effectiveness of such chemotherapy while diminishing side-effects commenced in June 2007 at the Medical University of South Carolina (MUSC) Hollings Cancer Center. MUSC is collaborating on the trial with the Braman Family Breast Cancer Institute at the Sylvester Comprehensive Care Center University of Miami Miller School of Medicine (Sylvester). Alberto Montero, MD, Assistant Professor of Medicine at Sylvester, is the Principal Investigator.

Breast cancer remains a serious public health concern throughout the world. According to the American Cancer Society, approximately 183,000 women in the US were expected to be diagnosed with breast cancer in 2008, and approximately 41,000 were expected to die from the disease. Neoadjuvant or preoperative systemic chemotherapy is commonly employed in patients with locally advanced stage III breast cancer and in some patients with stage II tumors. Administration of neoadjuvant chemotherapy reduces tumor size, thus enabling breast conservation surgery in patients who otherwise would require a mastectomy. Furthermore, several studies have shown that pathologic complete response (pCR) following neoadjuvant chemotherapy is associated with a significantly higher probability of long-term survival. However, only a minority of patients with HER-2/neu negative breast cancer achieve a pCR with standard chemotherapy.

The primary objective of this open-label, single-arm trial is to determine if preoperative administration of NOV-002 in combination with eight cycles of chemotherapy (four of doxorubicin and cyclophosphamide followed by four of docetaxel) results in an appreciably higher pCR rate than expected with this same chemotherapeutic regimen alone. According to the Simon two-stage trial design, if four or more pCRs were observed in the first stage of the trial (19 women), enrollment would continue into the second stage, for a total of 46 women.

As of December 2008, 19 women have been enrolled, with six pCRs already demonstrated in the first 15 women (40%) who have completed chemotherapy and undergone surgery, which is much greater than the less than 20% historical expectation in HER-2 negative patients. Furthermore, NOV-002 was associated with decreased hematologic toxicities and with decreased use of growth factors (Ethropoiesis Stimulating Agents, which are potentially harmful) relative to historical experience. Detailed results were presented at the San Antonio Breast Cancer Symposium in December 2008. Having achieved an interim efficacy target even earlier than expected, the trial is moving into the second stage. Full enrollment of 46 patients is expected in the third quarter 2009, with trial conclusion anticipated in mid-2010.

NOV-002 for Chemotherapy (Platinum)-Resistant Ovarian Cancer

According to the American Cancer Society, approximately 22,000 U.S. women were expected to be diagnosed with ovarian cancer in 2008 and 15,500 women are expected to die from it. According to a Rodman and Renshaw report dated December 2006, the pharmaceutical market for treating ovarian cancer was estimated to be $300 million per year. There is a lack of effective treatment, particularly in the case of patients who are chemotherapy refractory (those who do not respond to chemotherapy) or resistant (those who relapse shortly after receiving chemotherapy).

First-line chemotherapy treatment is the same in ovarian cancer as in non-small cell lung cancer. Standard first-line treatment for ovarian cancer patients is carboplatin and paclitaxel chemotherapy in combination. Doxorubicin and topotecan alternate as second- and third-line chemotherapy treatments.

Refractory/resistant ovarian cancer patients have a very poor prognosis because they are faced with inadequate therapeutic options. According to a Lehman Brothers report dated September 2002, response rates from second-line treatments, such as doxorubicin and topotecan, are typically less than 12%. Once a woman's ovarian cancer is defined as platinum resistant, the chance of having a partial or complete response to further platinum therapy is typically less than 10%, according to an article by A. Berkenblit in the June 2005 issue of the *Journal of Reproductive Medicine.*

In Russia in 1998, twenty ovarian cancer case studies were analyzed. All of these patients were treated for three cycles with platinum-based chemotherapy but continued with progressive disease according to qualitative assessments and Cancer Antigen 125. The patients were then treated with NOV-002 for three to four weeks, followed by three more cycles of the same platinum-based chemotherapy (to which they previously failed to respond to) in conjunction with NOV-002. The observed 40% objective tumor response rate across these case studies is much higher than would ordinarily be expected in patients who had previously been non-responsive to platinum-based chemotherapy. Objective response is defined as partial (50% or greater tumor reduction) or complete response; it does not include stabilization of the disease or small reductions in tumor size. An additional 40% of patients in the Russian analysis displayed stable disease (i.e., no tumor growth).

In a U.S. Phase 2 chemotherapy-resistant ovarian cancer trial at Massachusetts General Hospital and Dana-Farber Cancer Institute from July 2006 through May 2008, NOV-002 (plus carboplatin) slowed progression of the disease in 60% of evaluable patients (9 out of 15 women). The median progression-free survival was 15.4 weeks, almost double the historical control of 8 weeks. These results were presented at the American Society of Clinical Oncology in May 2008. We plan to initiate a second Phase 2 trial in chemotherapy-resistant ovarian cancer patients in the event we obtain the additional funding necessary for that purpose. However, there can be no assurance that such funding will be available.

NOV-205

NOV-205 for Chronic Hepatitis C

NOV-205 is a unique, injectable, small-molecule proprietary formulation of oxidized glutathione and inosine. We are developing NOV-205 in the U.S. for the treatment of chronic hepatitis C.

According to the World Health Organization, chronic hepatitis C affected 170 million people worldwide in 2003, and up to four million people are newly infected each year. Chronic infection can progress to cirrhosis and end-stage liver disease. While there are varying estimates about the size of the global market for hepatitis C drugs, a September 2006 publication of *Nature Reviews Drug Discovery* estimated the current global market to be in excess of $3 billion per year, and estimated it would grow to more than $8 billion by 2010. The Centers for Disease Control and Prevention (CDC), estimated that in 2003, 3.9 million persons in the U.S. were infected with hepatitis C, and 2.7 million persons in the U.S. had chronic infection. The CDC further estimated that there are approximately 30,000 new hepatitis C infections and 8,000-10,000 hepatitis C-related deaths each year in the U.S.

NOV-205 was approved in Russia by the Ministry of Health in 2001 as monotherapy for the treatment of hepatitis B and C. The Russian approval of NOV-205 was supported by a Russian New Drug Application, which included studies in hepatitis B and C totaling 90 treated patients. An additional 88 patients had been treated in previous anecdotal studies. After relatively short treatment periods (one to two months), the drug was shown to eliminate the serum viral load in hepatitis B patients and to decrease viral load below detection in 40-60% of hepatitis C subjects. Importantly, these reductions were largely maintained during one to three months of post-treatment follow-up. In addition, NOV-205 was shown to improve liver function as evidenced by significant reductions in serum biochemical markers of liver toxicity. No NOV-205-related adverse events were reported among any of the 178 patients treated in these studies.

The therapeutic profile of NOV-205 contrasts sharply with those of currently approved therapies in the U.S., which have limited effectiveness, are expensive and have severe side effects, particularly in the case of chronic hepatitis C. For example, pegylated interferon and ribavirin combinations have limitations of safety and tolerability (40-65% of treated patients experience fatigue, depression, fever, headaches, muscle pain or anemia). Furthermore, these drugs are effective in only a fraction of the patient population and are very expensive. Other new products for hepatitis C, beyond variations of ribavirin and interferon (e.g., HCV protease inhibitors), are at early stages of development and could potentially be used in combination with NOV-205.

On the basis of the clinical and pre-clinical data package underlying Russian approval of NOV-205, in combination with U.S. chemistry and manufacturing information, we filed an Investigational New Drug Application with the FDA for NOV-205 as monotherapy in chronic hepatitis C in March 2006. The FDA accepted our Investigational New Drug Application in April 2006, and a U.S. Phase 1b trial in patients who previously failed treatment with pegylated interferon plus ribavirin commenced in September 2006 and was completed in December 2007. Based on the favorable safety data obtained from this trial, we plan to initiate a longer duration proof-of-concept trial in the event we obtain the additional funding necessary for that purpose. However, there can be no assurance that such funding will be available.

Non-clinical Research Program

Our non-clinical research program is aimed at gaining a better understanding of the mechanism(s) of action of our oxidized glutathione-based drug products and adding to the Russian non-clinical data that will be required for ultimate FDA filing of our products. This research is being performed via a network of academic and commercial (i.e., contract research organizations) laboratories.

We are engaged in a funded research collaboration with the laboratory of Kenneth Tew, Ph.D., D.Sc., Chairman of the Department of Cell and Molecular Pharmacology and Experimental Therapeutics at The Medical University of South Carolina. Dr. Tew is also chairman of our Scientific Advisory Board and a stockholder. The general objectives of this research program are to add to the understanding of NOV-002 and NOV-205 as drug products, particularly with respect to their molecular and cellular mechanisms of action and to facilitate the design and execution of clinical studies and the interactions with the FDA and the scientific community. Funded research collaborations have been conducted or are underway at other academic/scientific institutions including Harvard/Massachusetts General Hospital, the Wistar Institute, the University of Massachusetts Medical Center and the University of Miami to further elaborate *in vitro* and *in vivo* mechanisms of drug action that may underlie the clinical therapeutic profiles of NOV-002 and NOV-205.

Manufacturing

Our proprietary manufacturing process is well-established, simple, inexpensive and scalable. We have used U.S. and Canadian contract manufacturing facilities that are registered with the FDA to support our U.S. development efforts. We do not plan to build manufacturing capability over the next several years. Rather, we plan to continue to employ contract manufacturers.

The active pharmaceutical ingredient of NOV-002 is manufactured in the U.S. in compliance with current Good Manufacturing Practices at Synthetech, Inc. (Albany, OR) in a single, cost-effective synthetic step and then lyophilized into a powder at Oregon Freeze Dry, Inc. (Albany, OR). It is then filled, finished and packaged at Hyaluron (Burlington, MA) as a sterile, filtered, aseptically processed solution for intravenous, intramuscular and/or subcutaneous use. NOV-002 clinical trial material (vials containing the active pharmaceutical ingredient and solution) has successfully completed 36-month stability studies.

Similar to NOV-002, NOV-205's active pharmaceutical ingredient is manufactured in compliance with current Good Manufacturing Practices in a single, cost-effective synthetic step at Synthetech, Inc. and then lyophilized into a powder at Oregon Freeze Dry, Inc. It is then filled, finished and packaged at Dalton Pharma Services Inc. (Toronto, Canada).

Intellectual Property

We own all intellectual property rights worldwide (excluding Russia and other states of the former Soviet Union) related to both clinical-stage compounds (i.e., NOV-002 and NOV-205) and other pre-clinical compounds based on oxidized glutathione. We have six issued patents in the U.S. We also have two issued patents in Europe and one in Japan. Overall, we have filed more than 30 patent applications worldwide. Novelos has entered into a collaboration with Mundipharma to develop, manufacture and commercialize NOV-002 in Europe and Japan. NOV-205, our second compound, is in Phase 1b development for the treatment of chronic hepatitis C in non-responders. Both compounds have been licensed to Lee's Pharma for development, manufacture and commercialization in China.

We believe that our breadth of intellectual property will allow us to expand our pipeline by claiming and commercializing additional compounds that are based on oxidized glutathione.

Employees

As of March 1, 2009 we had eight full-time employees. We believe our relationships with our employees are good.

Regulation

The manufacturing and marketing of NOV-002 and NOV-205 and our related research and development activities are subject to regulation for safety, efficacy and quality by numerous governmental authorities in the United States and other countries. We anticipate that these regulations will apply separately to each drug and compound in our drug therapy technology. We believe that complying with these regulations will involve a considerable level of time, expense and uncertainty.

In the United States, drugs are subject to rigorous federal regulation and, to a lesser extent, state regulation. The Federal Food, Drug and Cosmetic Act and other federal and state statutes and regulations govern, among other things, the testing, manufacture, safety, efficacy, labeling, storage, recordkeeping, approval, advertising and promotion of our drugs. Drug development and approval within this regulatory framework is difficult to predict and will take a number of years and involve the expenditure of substantial resources.

The steps required before a pharmaceutical agent may be marketed in the United States include:

- Pre-clinical laboratory tests, *in vivo* pre-clinical studies, and formulation studies;
- The submission to the FDA of an Investigational New Drug Application for human clinical testing, which must become effective before human clinical trials can commence;
- Adequate and well controlled human clinical trials to establish the safety and efficacy of the product;
- The submission of a New Drug Application or Biologic Drug License Application to the FDA; and
- FDA approval of the New Drug Application or Biologic Drug License Application prior to any commercial sale or shipment of the product.

In addition to obtaining FDA approval for each product, each product manufacturing facility must be registered with and approved by the FDA. Manufacturing facilities are subject to biennial inspections by the FDA and must comply with the FDA's Good Manufacturing Practices for products, drugs and devices.

Whether or not FDA approval has been obtained, approval of a product by regulatory authorities in foreign countries must be obtained prior to the commencement of commercial sales of the drug in such countries. The requirements governing the conduct of clinical trials and drug approvals vary widely from country to country, and the time required for approval may be longer or shorter than that required for FDA approval. Although there are some procedures for unified filings for certain European countries, in general, each country has its own procedures and requirements.

LITIGATION

We are not a party to any legal proceedings the outcome of which, in the opinion of our management, would have a material adverse effect on our business, financial condition, or results of operations.

PROPERTIES

We lease our executive office in Newton, Massachusetts. Our office consists of approximately 3,000 square feet and is rented for approximately $7,700 per month. This lease expires in August 2009 and we anticipate obtaining an extension on the lease. 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

Our current directors and executive officers are:

Name	Age	Position
Stephen A. Hill, B.M. B.Ch., M.A., F.R.C.S.	50	Chairman of the Board
Harry S. Palmin	39	President, Chief Executive Officer, Director
Elias B. Nyberg, DVM, BVSc, MACVS, MRCVS, MBA	55	Vice President of Regulatory, Quality and Compliance
Christopher J. Pazoles, Ph.D.	58	Vice President of Research and Development
Joanne M. Protano	40	Vice President, Chief Financial Officer and Treasurer
Kristin C. Schuhwerk	38	Vice President of Clinical Development and Operations
Michael J. Doyle (1) (2) (3)	50	Director
Sim Fass, Ph.D. (1) (2) (3)	67	Director
James S. Manuso, Ph.D.	60	Director
David B. McWilliams (2) (3)	65	Director
Howard M. Schneider (1) (3)	65	Director

(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 our chairman of the board of directors in September 2007. Dr. Hill has served as the President and Chief Executive Officer of Solvay Pharmaceuticals, Inc. since April 2008. 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.

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.

Elias B. Nyberg. Dr. Nyberg has served as our vice president of regulatory, quality and compliance since May 2008. Prior to his employment with Novelos, since September 2006, Dr. Nyberg was a regulatory advisor to several companies including Labopharm and Novartis Phramaceuticals, Inc. From February 2004 to September 2006 he was the Vice President Regulatory Affairs for CombinatoRx. From April 2001 to January 2004 he served as the Senior Director International Regulatory Affairs for Biogen. Dr. Nyberg has also held senior regulatory positions with INC Research/PRA International Inc., Astra Arcus AB, Pfizer Pharmaceuticals and Ciba-Geigy. Prior to his tenure in the biotechnology industry, Dr. Nyberg practiced as a veterinarian for 12 years, specializing in exotic animals. He undertook his primary veterinary training in the Philippines followed by post doctorate work in South Africa and Australia. Dr. Nyberg earned an MBA in England and his specialty (diplomate) boards in Exotic Animal (Avian) Medicine (MACVS) in Australia. He is also a member of the Royal College of Veterinary Surgeons (MRCVS) in London.

Christopher J. Pazoles. Dr. Pazoles has served as our vice president of research and development since July 2005. 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 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.

Kristin C. Schuhwerk. Ms. Schuhwerk was appointed our vice president of clinical development and operations in December 2007. She previously served as our Director/Senior Director of Operations from July 2005 to December 2007. Prior to her employment at Novelos, she worked in the biopharmaceutical industry managing and overseeing business operations for multiple global Phase 2 and 3 clinical studies. From 2002 to 2005 she held the positions of Senior Project Manager and Director of Planning and Business Operations in Clinical Development at Antigenics, Inc., a cancer biotechnology company. From 1993 to 2002, she held research, project management and management positions at Boston University Medical Center, Parexel International, AstraZeneca and Brigham & Women's Hospital. Ms. Schuhwerk earned a B.S. degree in Chemistry from the University of New Hampshire.

Michael J. Doyle. Mr. Doyle has served as one of our directors since October 2005. Since October 2007 he has served as the chief executive officer of Medsphere Systems Corporation. From April 2006 to June 2007, he served as chief executive officer of Advantedge Healthcare Solutions. From January 2005 to March 2006, he served as chief executive officer of Windward Advisors. From March 2000 to December 2004, Mr. Doyle served as chairman and chief executive officer of Salesnet. From 1989 to 1997, he served as chairman and chief executive officer of Standish Care/Carematrix, a company he founded. He received a B.S. in biology from Tufts University and a M.B.A. with a concentration in finance and health care from the University of Chicago.

Sim Fass. Dr. Fass has served as one of our directors since February 2005. Dr. Fass, now retired, served as chief executive officer and chairman of Savient Pharmaceuticals from 1997 to 2004, its president and chief executive officer from 1984 to 1997, and its chief operating officer from 1983 to 1984. From 1980 to 1983, Dr. Fass served as vice president and general manager of Wampole Laboratories. From 1969 to 1980, he held a number of marketing, sales and senior management positions at Pfizer, Inc in both pharmaceuticals and diagnostics. He received a B.S. in biology and chemistry from Yeshiva College and a doctoral degree in developmental biology/biochemistry from the Massachusetts Institute of Technology.

James S. Manuso. Dr. Manuso was elected as one of our directors in 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. and Merrion Pharmaceuticals Ltd. (Dublin, Ireland). 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.

David B. McWilliams. Mr. McWilliams has served as one of our directors since March 2004. From February 2004 to December 2004, Mr. McWilliams performed chief executive officer services for us. Mr. McWilliams is currently retired. From August 2004 to July 2008, Mr. McWilliams served as chief executive officer of Opexa Therapeutics, Inc. (formerly PharmaFrontiers Corp.). From 1992 to March 2002, he served as president, chief executive officer and a director of Encysive Pharmaceuticals (formerly Texas Biotech). From 1989 to 1992, Mr. McWilliams served as president, chief executive officer and director of Zonagen. From 1984 to 1988, he served as president and chief executive officer of Kallestad Diagnostics. From 1980 to 1984, he served as president of Harleco Diagnostics Division. From 1972 to 1980, he was an executive at Abbott Laboratories, rising to general manager for South Africa. From 1969 to 1972, he was a management consultant at McKinsey & Co. Mr. McWilliams is also a director of ApoCell Biosciences, Houston Technology Center and Opexa Therapeutics. Mr. McWilliams received a M.B.A. in finance from the University of Chicago and a B.A. in chemistry from Washington and Jefferson College.

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.

Compensation of Directors and Executive Officers

Executive Officer Compensation

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, 2008 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.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($) (3)	Option Awards ($) (4)	All other compensation ($)	Total ($)
Harry S. Palmin (1)	2008	$ 270,000	$ 40,500	$ 110,560	$ 0	$ 421,060
President, Chief Excutive Officer	2007	245,000	75,000	59,660	0	379,660
Christopher J. Pazoles (1)	2008	$ 235,000	$ 35,250	$ 55,280	$ 0	$ 325,530
Vice President of Research and Development	2007	216,720	60,000	37,288	0	314,008
Kristin C. Schuhwerk (1) (2)	2008	$ 200,000	$ 30,000	$ 55,280	$ 0	$ 285,280
Vice President of Clinical Development and Operations	2007	169,904	50,000	37,288	0	257,192

(1) There has been no increase to executive base salaries for 2009.
(2) Ms. Schuhwerk was appointed as an officer in December 2007. The compensation listed for 2007 was paid to her in her capacity as senior director of operations.
(3) Bonus amounts for 2008 were paid in 2009. Bonus amounts for 2007 were paid in 2008.
(4) The fair value of each stock award was estimated on the grant date using the Black-Scholes option-pricing model.

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, 2009 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 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 July 15, 2005, we entered into an employment agreement with Christopher J. Pazoles whereby he agreed to serve as our vice president of research and development for an initial term of two years. The agreement is automatically renewed for successive one-year terms unless notice of termination is provided by either party at least 60 days prior to the end of such term. The agreement was renewed for an additional one-year term on July 15, 2008 in accordance with its terms. The agreement provides for minimum salary and bonus amounts during the first two years of his employment. These minimum amounts have been satisfied. Dr. Pazoles' agreement provides that he is entitled to participate in our employee fringe benefit plans or programs generally available to our senior executives. The agreement further provides that in the event that we terminate Dr. Pazoles without cause or he resigns for good reason (as defined below), we will (i) pay Dr. Pazoles his base salary through the remainder of the term of his employment agreement in monthly installments; (ii) continue to provide him benefits for 12 months after the date of termination; and (iii) pay, on a prorated basis, any minimum bonus or other payments earned.

Dr. Pazoles also entered into a nondisclosure and development agreement with us, which prohibits him from competing with us and soliciting our employees or customers during the term of his employment and for two years thereafter. If we terminate his employment without cause, this prohibition will only extend for six months after his termination.

"Cause" means Dr. Pazoles (i) has willfully failed, neglected, or refused to perform his duties under the employment agreement; (ii) has been convicted of or pled guilty or no contest to a crime involving a felony; or (iii) has committed any act of dishonesty resulting in material harm to us.

"Good Reason" means that Dr. Pazoles has resigned due to our failure to meet any of our material obligations to him under the employment agreement.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth certain information regarding stock options held as of December 31, 2008 by the executive officers named in the summary compensation table.

	Individual Grants				
Name	Year of Grant	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Exercise or base price ($/share)	Expiration date
Harry S. Palmin	2008(1)	—	400,000	$ 0.43	12/15/2018
	2007(1)	66,666	133,334	0.45	12/17/2017
	2006(1)	100,000	50,000	0.91	12/11/2016
	2005(2)	250,000	—	0.01	1/31/2015
	2005(2)	150,000	—	0.01	3/31/2015
	2004(3)	330,000	—	0.01	4/1/2014
	2003(4)	7,130	—	0.70	8/1/2013
Christopher J. Pazoles.	2008(1)	—	200,000	$ 0.43	12/15/2018
	2007(1)	41,666	83,334	0.45	12/17/2017
	2006(1)	66,666	33,334	0.91	12/11/2016
	2005(5)	200,000	—	0.01	4/8/2015
	2004(6)	16,667	—	0.01	4/1/2014
Kristin C. Schuhwerk	2008(1)	—	200,000	$ 0.43	12/15/2018
	2007(1)	41,666	83,334	0.45	12/17/2017
	2006(1)	50,000	25,000	0.91	12/11/2016
	2005(7)	100,000	—	2.20	7/1/2015

(1) 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.

(2) 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.
(3) 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.
(4) 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.
(5) 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.
(6) These shares represent the fully vested portion of an option grant made to Mr. Pazoles in consideration of consulting services delivered during 2004. Pursuant to their terms, the shares vested at the completion of the consulting engagement and expire ten years from the date of grant.
(7) These shares vest in increments of one-fourth every six months over two years from the date of 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, 2008.

Name and Principal Position	Year	Director Fees ($) (3)	Option Awards ($) (4)	All other compensation ($)	Total ($)
Stephen A. Hill, Chairman (1)	2008	$ 38,000	$ 37,924	$ —	$ 75,924
Michael J. Doyle, Director (1)	2008	30,250	37,924	—	68,174
Sim Fass, Director (1)	2008	30,250	37,924	—	68,174
James S. Manuso, Director (1)	2008	23,000	37,924		60,924
David B. McWilliams, Director (1)	2008	26,750	37,924	—	64,674
Simyon Palmin, Director and director of Russian relations (2)	2008	—	—	88,133	88,133
Howard M. Schneider, Director (1)	2008	36,750	37,924	—	74,674

Simyon Palmin resigned from our board of directors on August 12, 2008. He remained an employee of the company until August 31, 2008 and provided consulting services to us for the remainder of the year. Other compensation for Mr. Palmin represents salary and bonus he received in his capacity as director of Russian relations for the Company and consulting fees paid to him for the months of September through December.

(1) As of December 31, 2008, outstanding options to purchase common stock held by directors were as follows: Dr. Hill 270,000; Mr. Doyle 270,000; Dr. Fass 270,000; Dr. Manuso 220,000; Mr. McWilliams 322,778; Mr. Schneider 170,000.

(2) As of December 31, 2008, Mr. Palmin held 300,000 options to purchase common stock. In addition, The Liberty Irrevocable Trust 2008, a trust for which his wife Alla is sole trustee, held 170,000 options to purchase common stock. The total of 470,000 options had been granted to Mr. Palmin during 2004 and 2005 in his capacity as chairman and chief executive officer.

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

(4) The fair value of each stock award was estimated on the grant date using the Black-Scholes option-pricing model. See Note 6 to the financial statements for a description of the assumptions used in estimating the fair value of stock options.

During 2008, 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, each non-employee director who serves as the chair of the audit committee an additional annual fee of $10,000 and each non-employee director who serves as the chairman of the compensation and 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 2009.

During 2008, each non-employee director received an annual stock option grant of 40,000 shares of our common stock at the closing price of our common stock on the first trading day of the fiscal year. On December 15, 2008, options to purchase 80,000 shares of our common stock were granted for 2009 to each of our non-employee directors at the closing price of our common stock on that day. Both of these option grants vest on a quarterly basis over a two-year period.

Equity compensation plans

The following table provides information as of December 31, 2008 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. We have 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	4,826,047	$ 0.61	230,000
Equity compensation plans not approved by stockholders	2,453,778	$ 0.57	0
Total	7,279,825	$ 0.60	230,000

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

At the close of business on April 20, 2009, there were issued and outstanding 43,975,656 shares of our common stock. The following table provides information regarding beneficial ownership of our common stock as of April 20, 2009:

- 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 that vest within 60 days of April 20, 2009.

	Shares Beneficially Owned (3)			
Name and Address of Beneficial Owner	**Outstanding**	**Right to Acquire**	**Total**	**Percentage**
CRE Fiduciary Services, Inc. as Trustee of the CRE Trust 2120 Carey Avenue Cheyenne, WY 82001	4,615,384	-	4,615,384	10.5%
Liberty Irrevocable Trust 2008 (1) 99-60 Florence Street, Apt. 4A Chestnut Hill, MA 02467	1,975,481	470,000	2,445,481	5.5%
Harry S. Palmin (2)	641,118	903,796	1,544,914	3.4%
Christopher J. Pazoles	0	324,999	324,999	*
Kristin C. Schuhwerk	0	191,666	191,666	*
Stephen A. Hill	0	166,250	166,250	*
Michael J. Doyle	0	185,000	185,000	*
Sim Fass	0	185,000	185,000	*
James S. Manuso	0	122,500	122,500	*
David B. McWilliams	0	237,778	237,778	*
Howard M. Schneider	100,000	85,000	85,000	*
All directors and officers as a group (11 persons)	741,118	2,621,988	3,363,106	7.2%

* Less than one percent.

(1) Shares outstanding include 236,542 shares owned by Alla Palmin, trustee of the Liberty Irrevocable Trust2008. Shares in the "Right to Acquire" column include 300,000 options to purchase common stock held by Simyon Palmin, a founder of Novelos, a director until August 15, 2008, the father of Harry Palmin and husband of Alla Palmin.

(2) Shares owned by H. Palmin include 94,000 shares owned by his wife, Deanna Palmin.

(5) The terms of our Series E preferred stock and common stock purchase warrants issued to the holders of Series E preferred stock provide that the number of shares of common stock to be obtained by each of the holders of Series E preferred stock and common stock purchase warrants, upon conversion of the Series E preferred stock or exercise of the common stock purchase warrants, cannot exceed the number of shares that, when combined with all other shares of our common stock and securities owned by each of them, would result in any one of them owning more than 4.99% or 9.99%, as applicable in the certificate of designations and warrant agreement, of our outstanding common stock, provided, however that this limitation may be revoked by the stockholder upon 61 days prior notice to us. For this reason, holders of our Series E preferred stock who might otherwise have the right to acquire 5% or more of our common stock have been omitted from this table. Such limitations do not apply in the event of automatic conversion of Series E preferred stock. Similar blocking provisions apply to outstanding shares of our Series C preferred stock and common stock purchase warrants issued to the holders of Series C preferred stock and therefore holders of our Series C preferred stock who might otherwise have the right to acquire 5% or more of our common stock have also been omitted from this table.

Pro Forma Holdings Upon Automatic Conversion of Series E Preferred Stock

The following table illustrates the pro forma beneficial ownership of our common stock that would result in the event of an automatic conversion of all of the outstanding shares of our Series E preferred stock into common stock. All outstanding shares of Series E preferred stock automatically convert in the event the volume weighted average price of our common stock, calculated in accordance with the terms of the Series E preferred stock, exceeds $2.00 for 20 consecutive trading days, provided there is an effective registration statement covering the resale of the shares of common stock so issuable. At the current conversion price of $0.65, the automatic conversion of all outstanding shares of Series E preferred stock would result in the issuance of 49,649,445 shares of common stock. In the table below, share holdings have been presented in total for groups of associated funds or companies. Such presentation is not intended to represent that such funds or companies are under common control.

Name and Address of Beneficial Owner	Outstanding	Issuable upon automatic conversion of Series E preferred stock	Total pro forma ownership (1)	Pro forma ownership percentage (2)
Xmark affiliated funds (3) 90 Grove Street Ridgefield, CT 06877	0	9,082,045	9,082,845	9.7%
Orbimed affiliated funds (4) 767 Third Avenue, 30th Floor New York, NY 10017	0	10,878,150	10,878,150	11.6%
Knoll affiliated funds (5) 666 Fifth Avenue, Suite 3702 New York, NY 10103	1,677,785	9,247,776	10,925,561	11.7%
Hunt Bioventures 1900 N. Akard Street Dallas, TX 75201	0	5,056,860	5,056,860	5.4%

Name and Address of Beneficial Owner	Outstanding	Issuable upon Automatic conversion of Series E preferred stock	Total pro Forma Ownership (1)	Pro forma Ownership Percentage (2)
Purdue Pharma, L.P. (6) One Stamford Forum 201 Tresser Blvd. Stamford, CT 06901-3431	0	15,384,614	15,384,614	16.4%

(1) Pro forma ownership does not include 21,096,150 shares of common stock issuable upon exercise of outstanding warrants, due to the effect of the blocker provisions described in Note 3 of the preceding table.

(2) Based on 93,625,101 shares of common stock outstanding, which reflects the number of shares of common stock outstanding as of March 20, 2009, plus the total number of shares issuable upon conversion of all of the outstanding shares of Series E preferred stock.

(3) Includes Xmark Opportunity Partners LLC, Xmark Opportunity Fund, Ltd., Xmark Opportunity Fund, L.P., Xmark JV Investment Partners, LLC.

(4) Includes Orbimed Advisors LLC, Caduceus Capital Master Fund Limited, Caduceus Capital II, LP, UBS Eucalyptus Fund, L.L.C., PW Eucalyptus Fund, Ltd., and Summer Street Life Sciences Investors LLC.

(5) Includes Knoll Capital, Knoll Special Opportunities Fund II Master Fund, Ltd., Europa International, Inc.

(6) On February 12, 2009, Purdue Pharma L.P. transferred its shares of Series E Preferred Stock and warrants to purchase common stock of Novelos to Beacon Company and Rosebay Medical Company L.P., which are independent associated companies of Purdue Pharma L.P.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

We are obligated to ZAO BAM under a royalty and technology transfer agreement. Mark Balazovsky, one of our directors 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 the Company would be required to pay ZAO BAM an additional 9% of the amount by which license revenues exceed the Company's cumulative expenditures. During 2008, we paid ZAO BAM $15,000, which was 3% of license payments received under the collaboration agreement with Lee's Pharma, described in Note 5 to the financial statements.

As a result of the assignment to Novelos of the exclusive worldwide intellectual property and marketing rights of oxidized glutathione (excluding Russia and the other states of the former Soviet Union), Novelos is obligated to the Oxford Group, Ltd. for future royalties. Simyon Palmin, a founder of Novelos, a director until August 15, 2008 and the father of the Company's president and chief executive officer, is president of Oxford Group, Ltd. Mr. Palmin was also an employee of the Company and is now a consultant to the Company. Pursuant to the agreement, as revised May 26, 2005, Novelos is required to pay Oxford Group, Ltd. a royalty in the amount of 0.8% of the Company's 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 meets 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 is not an independent director.

PRIVATE PLACEMENTS OF CONVERTIBLE PREFERRED STOCK AND WARRANTS

On May 2, 2007, pursuant to a securities purchase agreement dated April 12, 2007, as amended on May 2, 2007, we sold 300 shares of a newly created series of preferred stock, designated "Series B Convertible Preferred Stock", with a stated value of $50,000 per share (the "Series B Preferred Stock") and issued warrants to purchase 7,500,000 shares of common stock to the selling stockholders for an aggregate purchase price of $15,000,000 (the "Series B Financing"). The shares of Series B Preferred Stock issued to the investors were initially convertible into shares of common stock at $1.00 per share at any time after issuance, at the option of the holder. If all the shares of Series B Preferred Stock were converted following closing, a total of 15,000,000 shares of common stock would have been issued.

On April 11, 2008, pursuant to a securities purchase agreement dated March 26, 2008, as amended on April 9, 2008, we sold 113.5 shares of our "Series D Convertible Preferred Stock", with a stated value of $50,000 per share (the "Series D Preferred Stock"), and issued warrants to purchase up to 4,365,381 shares of common stock (the "Series D Financing") to the selling stockholders. If all of these shares of Series D Preferred Stock were converted following the closing, a total of 8,730,755 shares of common stock would have been issued.

Upon the closing of the Series D Financing, the holders of our Series B Preferred Stock exchanged all 300 shares of their Series B Preferred Stock for 300 shares of Series D Preferred Stock. Following the exchange, no shares of Series B Preferred Stock remained outstanding. The rights and preferences of the Series D Preferred Stock were substantially the same as the Series B Preferred Stock, but the conversion price of the Series D Preferred Stock was $0.65. As a result of the reduced conversion price, Series B Preferred Stock that was convertible into 15,000,000 shares of common stock was exchanged for shares of Series D Preferred Stock convertible into 23,076,900 shares of common stock. If all outstanding shares of Series D Preferred Stock were converted following the closing, a total of 31,807,655 shares of common stock would have been issued.

On February 11, 2009, we sold 200 shares of our "Series E Convertible Preferred Stock", with a stated value of $50,000 per share (the "Series E Preferred Stock"), and issued warrants to purchase up to 9,230,769 shares of common stock (the "Series E Financing") to Purdue Pharma L.P. ("Purdue"). The 200 shares of Series E Preferred Stock held by Purdue are convertible into 15,384,615 shares of common stock.

Upon the closing of the Series E Financing, the holders of our Series D Preferred Stock exchanged all 413.5 shares of their Series D Preferred Stock and accrued dividends thereon for 445.442875 shares of Series E Preferred Stock, convertible into 34,264,831 shares of common stock. Following the exchange, no shares of Series D Preferred Stock are outstanding. The rights and preferences of the Series E Preferred Stock are substantially the same as the Series D Preferred Stock. The exchange was completed principally so that the rights of Purdue would be substantially the same as the rights of the holders of the Series D Preferred Stock prior to the exchange.

Common Stock Purchase Warrants

In connection with the Series D Financing, we issued five-year warrants to purchase an aggregate of 4,365,381 shares of our common stock for an aggregate purchase price of $5,675,000 (the "Series D Warrants"). The Series D Warrants have an exercise price of $0.65 per share and initially expired in April 2013.

In connection with the Series B Financing, we issued warrants to purchase an aggregate of 7,500,000 shares of our common stock (the "Series B Warrants"). The Series B warrants had an initial exercise price of $1.25 per share and expired in May 2012. In connection with the Series D Financing, the terms of the Series B warrants were amended to conform the terms of the Series B Warrants to the Series D Warrants. The Series B Warrants as amended have an exercise price of $0.65 per share and were scheduled to expire in April 2013.

Both the Series B Warrants and the Series D Warrants provided that, if there is an effective registration statement covering the shares underlying the warrants and the VWAP, as defined in the warrants, of our common stock exceeds $2.50 for 20 consecutive trading days, then on the 31 st day following the end of such period any remaining warrants for which a notice of exercise was not delivered shall no longer be exercisable and shall be converted into a right to receive $.01 per share.

In connection with the Series E financing, the Series B Warrants and the Series D Warrants were amended to extend the expiration to December 31, 2015 and remove the automatic exercise provision.

Registration Rights Agreements

In connection with the Series B Financing, we entered into a registration rights agreement that required us to file with the SEC no later than June 1, 2007, a registration statement covering the resale of 23,400,000 shares of common stock (i.e. 100% of the shares of common stock issuable upon conversion of the Series B Preferred Stock and exercise of the related warrants). We filed a registration statement covering 23,400,000 shares of common stock on May 25, 2007. After discussion with the SEC, the registration statement was amended to cover only 12,000,000 shares of common stock issuable upon conversion of 240 shares of the Series B Preferred Stock. The holders of Series B Preferred Stock (i) consented to the reduction of shares being covered by the registration statement from 23,400,000 to 12,000,000, (ii) agreed to extend the date by which the registration statement must be declared effective from August 30, 2007 to September 7, 2007 and (iii) waived, through September 7, 2007, any liquidated damages arising as a result of the reduction in the number of shares being registered and by the failure to have the registration statement declared effective by August 30, 2007. The SEC declared this registration statement effective on September 6, 2007.

On April 11, 2008 in connection with the closing of the Series D Financing, the holders of Series B Preferred Stock waived any and all liquidated damages arising under the registration rights agreement during the period from September 7, 2007 through the closing of the Series D Financing as a result of our failure to register 100% of the shares of common stock issuable upon conversion of the Series B Preferred Stock and exercise of the related warrants. In addition, we entered into an amendment to the above described registration rights agreement with the holders of our Series B Preferred Stock to (i) revise the definition of registrable securities under the agreement to only include the 12,000,000 shares of common stock that are included on a the registration statement that became effective on September 6, 2007, (ii) clarify that our registration obligations survive the exchange of Series B Preferred Stock for Series D Preferred Stock and (iii) extend our registration obligations under the registration rights agreement by one year. Under the amended registration rights agreement, we are required to use our best efforts to keep the registration statement continuously effective under the Securities Act until the earlier of the date when all the registrable securities covered by the registration statement have been sold or the third anniversary of the closing. We are allowed to suspend the use of the registration statement for not more than 15 consecutive days or for a total of not more than 30 days in any 12-month period without incurring liability for the liquidated damages in certain circumstances.

In connection with the Series D Financing, we entered into a registration rights agreement (the "2008 Registration Rights Agreement")with the investors (the "Series D Investors") which requires us to file with the SEC no later than 5 business days following the six-month anniversary of the closing of the Series D Financing, a registration statement covering the resale of (i) a number of shares of common stock equal to 100% of the shares issuable upon conversion of the Series D Preferred Stock (excluding 12,000,000 shares of common stock issuable upon conversion of the Series D Preferred Stock that are included on a prior registration statement), (ii) 4,365,381 shares of common stock issuable upon exercise of the Series D Warrants and (iii) 7,500,000 shares of common stock issuable upon exercise of the Series B Warrants. This registration rights agreement provided for the payment of liquidated damages in the event that the registration statement was not filed by the time specified. That registration statement was not filed.

In connection with the Series E Financing, the Series D Investors waived all damages that had accrued through February 11, 2009 as a result of our failure to file the registration statement. Also, simultaneous with the closing of the Series E Financing we entered into a new registration rights agreement with Purdue and the Series D Investors. This agreement replaced the 2008 Registration Rights Agreement and requires us to file with the Securities and Exchange Commission no later than 5 business days following the six-month anniversary of the closing of the Series E Financing, a registration statement covering the resale of (i) a number of shares of common stock equal to 100% of the shares issuable upon conversion of the Series E Preferred Stock (excluding 12,000,000 shares of common stock included in this registration statement), (ii) 9,230,769 shares of common stock issuable upon exercise of the warrants issued to Purdue and (iii) 11,865,381 shares of common stock issuable upon exercise of warrants held by the Series D Investors. We are required to use our best efforts to have the registration statement declared effective and to keep the registration statement continuously effective under the Securities Act until the earlier of the date when all the registrable securities covered by the registration statement have been sold or until February 11, 2011. In the event that we fail to file the registration statement within the timeframe specified, we will be required to pay to Purdue and the Series D Investors liquidated damages equal to 1.5% per month (pro-rated on a daily basis for any period of less than a full month) of the aggregate purchase price of the Series E Preferred Stock and warrants until the delinquent registration statement is filed. We will be allowed to suspend the use of the registration statement for not more than 15 consecutive days or for a total of not more than 30 days in any 12 month period.

Placement Agent

Upon the closing of the Series B Financing we paid a placement agent fee to Rodman & Renshaw LLC ("Rodman") and Rodman's subagent, Emerging Growth Equities, Ltd., in cash in the amount of $1,050,000 and issued Rodman and the subagent warrants to purchase 765,000 and 135,000 shares of common stock, respectively, having the same terms as the warrants issued to the investors. This placement agent fee was made in accordance with a letter agreement dated February 12, 2007 between us and Rodman. We also agreed to indemnify Rodman from claims arising in relation to the services it provided to us in connection with the Letter Agreement. Following the closing of the Series D Financing we paid Rodman a cash fee of $100,000.

Relationships with the Selling Stockholders

Except as described above under the caption “Private Placements of Convertible Preferred Stock and Warrants”, none of the selling stockholders had any material relationship with us within the past three years.

Selling Stockholders Table

Based on the information supplied to us by each selling stockholder, the following table sets forth the approximate number of shares beneficially owned as of April 20, 2009 by each of the selling stockholders and their pledgees, assignees and successors in interest. The ‘‘Right to Acquire’’ column reflects beneficial ownership of shares subject to warrants and convertible preferred stock that may be exercised or converted within 60 days after April 20, 2009. The “Shares Offered” column reflects all of the shares that each selling stockholder may offer under this prospectus. Percentage ownership is based on 43,975,656 shares issued and outstanding as of April 20, 2009. The table assumes that the selling stockholders sell all of the shares.

We prepared the table below based on information supplied to us by the selling stockholders. Although we have assumed for purposes of the table that the selling stockholders will sell all of the shares offered by this prospectus, because the selling stockholders may offer from time to time all or some of their shares covered under this prospectus, or in another permitted manner, no assurances can be given as to the actual number of shares that will be resold by the selling stockholders or that will be held by the selling stockholders after completion of the resales.

The terms of the Series E certificate of designations and common stock purchase warrants provide that the number of shares to be obtained by each of the holders of Series E preferred stock and warrants, upon conversion of Series D preferred stock or exercise of our common stock purchase warrants, cannot exceed the number of shares that, when combined with all other shares of our common stock and securities owned by each of them, would result in any one of them owning more than 4.99% or 9.99%, as applicable, of our outstanding common stock at any given point in time, provided however that this limitation may be revoked by the stockholder upon 61 days prior notice to the Company. Such limitations do not apply in the event of automatic conversion of Series E preferred stock. For purposes of the table below, we have disregarded these blocking provisions.

Information concerning the selling stockholders may change from time to time and changed information will be presented in a supplement to this prospectus if and when necessary and required. Except as described above, there are currently no agreements, arrangements or understandings with respect to the resale of any of the shares covered by this prospectus.

Except as described above and in the footnotes to the selling stockholders table and except for the ownership of our preferred stock and common stock purchase warrants, none of the selling stockholders had any material relationship with us within the past three years.

Selling Stockholders

Name of Beneficial Owner	Beneficial Ownership Prior to Offering			Shares Offered	Beneficial Ownership After Offering		
	Outstanding	Right to Acquire	Total		Outstanding	Right to Acquire	Percent
Xmark Opportunity Fund, Ltd.	0	6,110,253	6,110,253	1,600,000	0	4,510,253	9.3
Xmark Opportunity Fund, L.P.	0	3,055,126	3,055,126	800,000	0	2,255,126	4.9
Xmark JV Investment Partners, LLC	0	3,055,126	3,055,126	800,000	0	2,255,126	4.9
Caduceus Capital Master Fund Limited	0	5,746,272	5,746,272	1,600,000	0	4,146,272	8.6
Caduceus Capital II, L.P.	0	4,402,375	4,402,375	1,040,000	0	3,362,375	7.1
UBS Eucalyptus Fund, L.L.C.	0	2,946,452	2,946,452	1,040,000	0	1,906,452	4.2
PW Eucalyptus Fund, Ltd.	0	339,974	339,974	120,000	0	219,974	*
Knoll Special Opportunities Fund II Master Fund, Ltd.(1)	268,485	5,503,619	5,772,104	1,600,000	268,485	3,903,619	8.7
Europa International, Inc. (1)	1,409,300	6,959,541	8,368,841	1,600,000	1,409,300	5,359,541	13.7
Hunt BioVentures, L.P.	0	6,798,206	6,798,206	1,800,000	0	4,998,206	10.2

* Less than 1%

(1) Shares in the "Outstanding" column consist of shares purchased in market transactions following the closing of the sale of Series B Preferred Stock.

Voting and Investment Control

The table below sets forth selling stockholders that are entities and the names of individuals having voting and investment control over the securities held by these entities. We determined beneficial ownership based upon information supplied to us by the selling stockholders and in accordance with rules promulgated by the Securities and Exchange Commission, and the information is not necessarily indicative of beneficial ownership for any other purpose. The inclusion of shares listed as beneficially owned does not constitute an admission of beneficial ownership. Except as otherwise indicated, we believe that the persons or entities named in the following table have voting and investment power with respect to all shares of common stock shown as beneficially owned by them, subject to community property laws where applicable, and have not held any office or maintained any material relationship, except as investor or as described above, with us, or any of our predecessors or affiliates, over the past three years. Certain of the individuals with voting and investment control have indicated that they exercise such control through a corporate or other organizational structure, which structural information has not been included.

The following entities have informed us that the following individuals have voting and investment control over our securities held by them:

Entity	Voting and Investment Control
Xmark Opportunity Fund, Ltd.	Mitchell Kaye and David Cavalier
Xmark Opportunity Fund, L.P.	Mitchell Kaye and David Cavalier
Xmark JV Investment Partners, LLC	Mitchell Kaye and David Cavalier
Caduceus Capital Master Fund Limited	Samuel D. Isaly
Caduceus Capital II, L.P.	Samuel D. Isaly
UBS Eucalyptus Fund, L.L.C.	Samuel D. Isaly
PW Eucalyptus Fund, Ltd.	Samuel D. Isaly
Knoll Special Opportunities Fund II Master Fund, Ltd.	Fred Knoll, KOM Capital Management as Investment Manager for Knoll Special Opportunities Fund II Master Fund, Ltd.

Europa International, Inc.	Fred Knoll, Knoll Capital Management as Investment Manager for Europa International Inc.
Hunt BioVentures, L.P.	Christopher W. Kleinert
Xmark JV Investment Partners, LLC	Mitchell Kaye and David Cavalier

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. As of April 20, 2009, we had designated 272 shares of Series C cumulative convertible preferred stock, all of which were issued and outstanding as of that date and 735 shares of Series E convertible preferred stock, 645.442875 of which were issued and outstanding as of that date.

All outstanding shares of our common stock and preferred 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 charter prohibits us from granting preemptive rights to any of our stockholders. All outstanding shares are fully paid and nonassessable.

Listing. Our common stock is traded on the over-the-counter bulletin board under the trading symbol “NVLT.OB”.

Series C 8% Cumulative Convertible Preferred Stock

Stated Value: The Series C preferred stock has a stated value of $12,000 per share.

Voting Rights: The Series C preferred stockholders do not have voting rights.

Dividends: The Series C preferred stock had an annual dividend rate of 8% until October 1, 2008 and thereafter has an annual dividend rate of 20%. The dividends are payable quarterly commencing on June 30, 2007. Such dividends shall only be paid after all outstanding dividends on the Series E preferred stock (with respect to the current fiscal year and all prior fiscal years) shall have been paid to the holders of the Series E preferred stock. Such dividends shall be paid in cash.

Conversion: Each share of Series C preferred stock is currently convertible at a price of $0.65 per common share. The Series C preferred stock can be converted only to the extent that the Series C stockholder will not, as a result of the conversion, hold in excess of 4.99% of the total outstanding shares of our common stock, provided however that this limitation may be revoked by the stockholder upon 61 days prior notice to us.

Antidilution : Upon the occurrence of a stock split, stock dividend, combination of our common stock into a smaller number of shares, issuance of any of our shares or other securities by reclassification of our common stock, merger or sale of substantially all of our assets, the conversion rate shall be adjusted so that the conversion rights of the Series C preferred stock stockholders will be equivalent to the conversion rights of the Series C preferred stock stockholders prior to such event.

Redemption: The Series C preferred stock is not redeemable at the option of the holder. However, we may redeem the Series C preferred stock by paying to the holder a sum of money equal to one hundred twenty percent (120%) of the stated value per share plus any accrued but unpaid dividends upon 30 days' (during which time the Series A preferred stock may be converted) prior written notice if a registration statement has been filed with and declared effective by the Securities and Exchange Commission covering the shares of our common stock issuable upon conversion of the Series C preferred stock.

Dissolution: In the event of any voluntary or involuntary liquidation, dissolution or winding up of our affairs, the Series C preferred stock will be treated as senior to our common stock. After all required payments are made to holders of Series E preferred stock, the Series C preferred stockholders will be entitled to receive first, $12,000 per share and all accrued and unpaid dividends. If, upon any winding up of our affairs, our remaining assets available to pay the holders of Series C preferred stock are not sufficient to permit the payment in full, then all our assets will be distributed to the holders of our Series C preferred stock (and any remaining holders of Series E preferred stock as may be required) on a pro rata basis.

Series E Convertible Preferred Stock

Stated Value: The Series E preferred stock has a stated value of $50,000 per share.

Voting and Board Rights: The Series E preferred stockholders are entitled to vote on all matters on which the holders of common stock are entitled to vote. The number of votes to which each holder of Series E preferred stock is entitled is equal to the number of shares of common stock that would be issued to such holder if the Series E Preferred Stock had been converted at the record date for the meeting of stockholders, subject to the limitations described under the subcaption "Conversion" below.

Pursuant to the Securities Purchase Agreement dated March 26, 2008, Xmark Opportunity Fund, Ltd. and its affiliates (the "Xmark Entities"), has the right to designate one member to our Board of Directors. This right shall last until such time as the Xmark Entities no longer hold at least one-third of the preferred stock issued to them at closing. In addition, the Xmark Entities and Caduceus Capital Master Fund Limited and its affiliates (together with the Xmark Entities, the "Lead Investors") have the right to designate one observer to attend all meetings of our Board of Directors, committees thereof and access to all information made available to members of the Board. This right shall last until such time as the Lead Investors no longer hold at least one-third of the preferred stock issued to them. Pursuant to a Securities Purchase Agreement dated February 11, 2009, Purdue Pharma, L.P. ("Purdue") has the right to designate one observer to attend all meetings of our Board of Directors, committees thereof and access to all information made available to members of the Board. This right shall last until such time as no longer hold at least one-half of the preferred stock issued to them.

Dividends: The Series E preferred stock has a dividend rate of 9% per annum, payable semi-annually. Such dividends may be paid in cash, in shares of Series E preferred stock or in registered shares of common stock. While any shares of Series E preferred stock remain outstanding, we are prohibited from paying dividends to common stockholders or any other class of preferred stock other than Series C preferred stock without the prior consent of the Series E holders. If consent is given, the holders of outstanding shares of Series E preferred stock are also entitled to participate in any dividends paid to common stockholders.

Conversion: Each share of Series E preferred stock is convertible at a price of $0.65 per common share at any time after issuance. The Series E preferred stock can be converted only to the extent that the Series E stockholder will not, as a result of the conversion, beneficially hold in excess of 4.99% or 9.99%, as applicable, of the total outstanding shares of our common stock, provided however that this limitation may be revoked by the stockholder upon 61 days prior notice to the Company. If there is an effective registration statement covering the shares of common stock underlying the outstanding shares of Series E preferred stock and the daily volume weighted average price ("VWAP"), as defined in the Series E Certificate of Designations, of our common stock exceeds $2.00 for 20 consecutive trading days, then the outstanding Series E preferred stock will automatically convert into common stock at the conversion price then in effect.

Antidilution : Upon the occurrence of a stock split, stock dividend, combination of our common stock into a smaller number of shares, issuance of any of our shares or other securities by reclassification of our common stock, merger or sale of substantially all of our assets, the conversion rate shall be adjusted so that the conversion rights of the Series E preferred stock will be equivalent to the conversion rights of the Series E preferred stock stockholders prior to such event.

Liquidation: The Series E preferred stock ranks senior to all other outstanding series of preferred stock and common stock as to the payment of dividends and the distribution of assets upon voluntary or involuntary liquidation, dissolution or winding up of our affairs. The SeriesE preferred stockholders will be entitled to receive first, $50,000 per share and all accrued and unpaid dividends. They are then entitled to participate with the holders of the remaining classes of common stock in the distribution of remaining assets on a pro rata basis. If, upon any winding up of our affairs, our assets available to pay the holders of Series E Preferred Stock are not sufficient to permit the payment in full, then all our assets will be distributed to the holders of our Series E Preferred Stock on a pro rata basis.

If we sell, lease or otherwise transfer substantially all of our assets, consummate a business combination in which we are not the surviving corporation or, if we are the surviving corporation, if the holders of a majority of our common stock immediately before the transaction do not hold a majority of our common stock immediately after the transaction, in one or a series of events, change the majority of the members of our board of directors, or if any person or entity (other than the holders of Series E Preferred Stock) acquires more than 50% of our outstanding stock, then the holders of Series E preferred stock are entitled to receive the same liquidation preference as described above, except that after receiving $50,000 per preferred share and any accrued but unpaid dividends, they are not entitled to participate with other classes or common stock in a distribution of the remaining assets.

Other restrictions: For as long as any shares of Series E Preferred Stock remain outstanding, without the prior consent of the Requisite Holders of Series E preferred stock (as defined), the Company is prohibited from (i) paying dividends to common stockholders; (ii) amending the Company's certificate of incorporation; (iii) issuing any equity security or any security convertible into or exercisable for any equity security at a price of $0.65 or less or with rights senior to the Series E Preferred Stock (except for certain exempted issuances); (iv) increasing the number of shares of Series E Preferred Stock or issuing any additional shares of Series E Preferred Stock other than the shares designated in the Series E Certificate of Designations; (v) selling or otherwise disposing of all or substantially all of the Company's assets or intellectual property or entering into a merger or consolidation with another company unless Novelos is the surviving corporation, the Series E Preferred Stock remains outstanding and there are no changes to the rights and preferences of the Series E Preferred Stock; (vi) redeeming or repurchasing any capital stock other than Series E Preferred Stock; (vii) incurring any new debt for borrowed money in excess of $500,000 and (viii) changing the number of the Company's directors.

Anti-Takeover Effect of Delaware Law, Certain By-Law Provisions

Provisions of Delaware law, 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.

Business Combinations. As a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the date the person becomes an interested stockholder, unless the business combination or the transaction in which the person becomes an interested stockholder is approved in a prescribed manner. Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to an interested stockholder. An interested stockholder includes a person who, together with affiliates and associates, owns, or did own within three years before the person was determined to be an interested stockholder, 15% or more of a corporation's voting stock. The existence of this provision generally will have an anti-takeover effect for transactions not approved in advance by the board of directors, including discouraging attempts that might result in a premium over the market price of our common stock.

Vacancies on the Board of Directors. Our by-laws provide that any vacancy on the board of directors, 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. This limitation on 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.

Special Meeting of Stockholders. Our by-laws provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before the meeting.

PLAN OF DISTRIBUTION

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

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

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

- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

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

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

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

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

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

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

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

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

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

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) until May 2, 2010.

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 small business issuer pursuant to the foregoing provisions, or otherwise, the small business issuer 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 450 Fifth Street, N.W., 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 SB-2 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.

EXPERTS

Stowe & Degon LLC have audited our financial statements as of December 31, 2008 and 2007 and for the years then ended. The financial statements referred to above are included in this prospectus with reliance upon the independent registered public accounting firm's opinion based on its expertise in accounting and auditing.

FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors
Novelos Therapeutics, Inc.
Newton, Massachusetts

We have audited the accompanying balance sheets of Novelos Therapeutics, Inc. as of December 31, 2008 and 2007 and the related statements of operations, redeemable preferred stock and stockholders' deficiency, and cash flows for the years then ended. 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 audits 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, 2008 and 2007 and the results of its operations, changes in stockholders' deficiency, and cash flows for the years then ended in conformity with accounting principles generally accepted in the United States.

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 continuing losses in the development of its products and has a stockholders' deficiency at December 31, 2008. These factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in this regard are described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Stowe & Degon LLC

Westborough, Massachusetts
March 17, 2009

NOVELOS THERAPEUTICS, INC.
BALANCE SHEETS

	December 31, 2008	December 31, 2007
ASSETS		
CURRENT ASSETS:		
Cash and equivalents	$ 1,262,452	$ 9,741,518
Restricted cash	—	1,184,702
Prepaid expenses and other current assets	129,785	133,281
Total current assets	1,392,237	11,059,501
FIXED ASSETS, NET	58,451	32,809
DEPOSITS	15,350	15,350
TOTAL ASSETS	$ 1,466,038	$ 11,107,660
LIABILITIES, REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIENCY		
CURRENT LIABILITIES:		
Accounts payable and accrued liabilities	$ 4,653,912	$ 6,372,478
Accrued compensation	240,639	349,412
Accrued dividends	1,689,322	337,500
Deferred revenue – current	33,333	—
Total current liabilities	6,617,206	7,059,390
DEFERRED REVENUE – NONCURRENT	433,333	—
COMMITMENTS AND CONTINGENCIES		
REDEEMABLE PREFERRED STOCK:		
Series D convertible preferred stock, $0.00001 par value; 420 shares designated; 413.5 shares issued and outstanding at December 31, 2008 (liquidation preference $22,070,562) (Note 4)	13,904,100	—
Series B convertible preferred stock, $0.00001 par value; 400 shares designated; 300 shares issued and outstanding at December 31, 2007 (Note 4)	—	9,918,666
	13,904,100	9,918,666
STOCKHOLDERS' DEFICIENCY:		
Preferred stock, $0.00001 par value; Series C 8% cumulative convertible preferred stock; 272 shares issued and outstanding at December 31, 2008 and 2007 (liquidation preference $3,557,760 and $3,264,000 at December 31, 2008 and 2007, respectively) (Note 4)	—	—
Common stock, $0.00001 par value; 150,000,000 shares authorized; 43,975,656 shares issued and outstanding at December 31, 2008; 39,260,272 shares issued and outstanding at December 31, 2007	440	392
Additional paid-in capital	40,204,112	37,370,959
Accumulated deficit	(59,693,153)	(43,241,747)
Total stockholders' deficiency	(19,488,601)	(5,870,396)
TOTAL LIABILITIES, REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIENCY	$ 1,466,038	$ 11,107,660

See notes to financial statements.

NOVELOS THERAPEUTICS, INC.
STATEMENTS OF OPERATIONS

	Year Ended December 31, 2008	2007
REVENUE	$ 125,968	$ —
COSTS AND EXPENSES:		
Research and development	14,526,619	17,427,804
General and administrative	2,190,366	2,866,383
Total costs and expenses	16,716,985	20,294,187
LOSS FROM OPERATIONS	(16,591,017)	(20,294,187)
OTHER INCOME:		
Interest income	130,611	729,922
Miscellaneous	9,000	7,130
Total other income	139,611	737,052
NET LOSS	(16,451,406)	(19,557,135)
PREFERRED STOCK DIVIDENDS	(2,092,102)	(1,161,120)
PREFERRED STOCK DEEMED DIVIDENDS	(4,417,315)	(9,003,083)
NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS	$ (22,960,823)	$ (29,721,338)
BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE	$ (0.56)	$ (0.76)
WEIGHTED AVERAGE SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE	41,100,883	39,247,532

See notes to financial statements.

NOVELOS THERAPEUTICS, INC.
STATEMENTS OF REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIENCY

	REDEEMABLE PREFERRED STOCK										
	Series B and D Convertible Preferred Stock		Common Stock		Series A Cumulative Convertible Preferred Stock		Series C Cumulative Convertible Preferred Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficiency)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
BALANCE AT JANUARY 1, 2007	—	$ —	39,235,272	$ 392	3,264	$ —	—	$ —	$ 34,294,154	$ (23,684,612)	$ 10,609,934
Exercise of stock options	—	—	25,000	—	—	—	—	—	250	—	250
Compensation expense associated with options issued to employees	—	—	—	—	—	—	—	—	343,233	—	343,233
Compensation expense associated with options issued to non-employees	—	—	—	—	—	—	—	—	160,057	—	160,057
Issuance of Series B redeemable convertible preferred stock and warrants, net of issuance costs of $1,306,949	300	17,743,051	—	—	—	—	—	—	3,774,385	—	3,774,385
Beneficial conversion feature on Series B redeemable convertible preferred stock	—	(7,824,385)	—	—	—	—	—	—	7,824,385	—	7,824,385
Deemed dividend related to the accretion of beneficial conversion feature on Series B redeemable convertible preferred stock	—	—	—	—	—	—	—	—	(7,824,385)	—	(7,824,385)
Retirement of Series A preferred stock and issuance of Series C preferred stock	—	—	—	—	(3,264)	—	272	—	—	—	—
Issuance of common stock purchase warrants in connection with exchange of preferred stock	—	—	—	—	—	—	—	—	1,138,698	—	1,138,698
Deemed dividend recorded in connection with exchange of Series A for Series C convertible preferred stock	—	—	—	—	—	—	—	—	(1,178,698)	—	(1,178,698)
Dividends paid on preferred stock	—	—	—	—	—	—	—	—	(823,620)	—	(823,620)
Dividends accrued on preferred stock	—	—	—	—	—	—	—	—	(337,500)	—	(337,500)
Net loss	—	—	—	—	—	—	—	—	—	(19,557,135)	(19,557,135)
BALANCE AT DECEMBER 31, 2007	300	9,918,666	39,260,272	392	—	—	272	—	37,370,959	(43,241,747)	(5,870,396)
Exercise of stock options	—	—	100,000	1	—	—	—	—	999	—	1,000
Compensation expense associated with options issued to employees	—	—	—	—	—	—	—	—	395,194	—	395,194
Compensation expense											

associated with options issued to non-employees	—	—	—	—	—	—	—	—	58,133	—	58,133
Issuance of common stock in a private placement			4,615,384	47					2,986,691	—	2,986,738
Issuance of Series D redeemable convertible preferred stock and warrants, net of issuance costs of $205,328	113.5	4,167,080	—	—	—	—	—	—	1,302,592	—	1,302,592
Adjustment to record the carrying value of Series D redeemable convertible preferred stock at market value on the date of sale	—	(181,646)	—	—	—	—	—	—	181,646	—	181,646
Fair value of reduction in conversion and exercise price of Series B redeemable convertible preferred stock and warrants	—	3,876,912	—	—	—	—	—	—	722,049	—	722,049
Accretion of deemed dividend associated with the reduction of conversion and exercise prices on Series B redeemable convertible preferred stock and warrants	—	(3,876,912)	—	—	—	—	—	—	(722,049)	—	(722,049)
Dividends paid on preferred stock	—	—	—	—	—	—	—	—	(402,780)	—	(402,780)
Dividends accrued on preferred stock	—	—	—	—	—	—	—	—	(1,689,322)	—	(1,689,322)
Net loss	—	—	—	—	—	—	—	—	—	(16,451,406)	(16,451,406)
BALANCE AT DECEMBER 31, 2008	413.5	$ 13,904,100	43,975,656	$ 440	—	$ —	272	$ —	$ 40,204,112	$ (59,693,153)	$ (19,488,601)

See notes to financial statements.

NOVELOS THERAPEUTICS, INC.
STATEMENTS OF CASH FLOWS

	Year Ended December 31, 2008	2007
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (16,451,406)	$ (19,557,135)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	16,889	15,367
Loss on disposal of fixed assets	6,472	—
Stock-based compensation	453,327	503,290
Change in:		
Prepaid expenses and other current assets	3,496	161,714
Accounts payable and accrued liabilities	(1,718,566)	5,284,437
Accrued compensation	(108,773)	124,028
Deferred revenue	466,666	—
Cash used in operating activities	(17,331,895)	(13,468,299)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of fixed assets	(49,003)	(24,366)
Change in restricted cash	1,184,702	470,549
Deposits	—	(4,475)
Cash provided by investing activities	1,135,699	441,708
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock, net	2,986,738	—
Proceeds from issuance of Series B convertible preferred stock, net	—	13,693,051
Proceeds from issuance of Series D convertible preferred stock, net	5,469,672	—
Dividends paid to preferred stockholders	(740,280)	(823,620)
Payment to preferred stockholders in connection with exchange of shares (1)	—	(40,000)
Proceeds from exercise of stock option	1,000	250
Cash provided by financing activities	7,717,130	12,829,681
DECREASE IN CASH AND EQUIVALENTS	(8,479,066)	(196,910)
CASH AND EQUIVALENTS AT BEGINNING OF YEAR	9,741,518	9,938,428
CASH AND EQUIVALENTS AT END OF YEAR	$ 1,262,452	$ 9,741,518
SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING ACTIVITIES		
Deemed dividends on preferred stock	$ 4,417,315	$ 8,963,083
Dividends accrued but not paid to preferred stockholders	$ 1,689,322	$ 337,500
Issuance of warrants to preferred stockholders	$ 1,302,592	$ 3,774,385
Issuance of warrants to placement agents	$ —	$ 768,621
Exchange of Series B for Series D preferred stock	$ 9,918,666	$ —

(1) Included as a deemed dividend in the Statement of Operations.

See notes to financial statements.

1. NATURE OF BUSINESS, ORGANIZATION AND GOING CONCERN

Novelos Therapeutics, Inc. (''Novelos'' or the ''Company'') is a drug development company focused on the development of therapeutics for the treatment of cancer and hepatitis. Novelos owns exclusive worldwide intellectual property rights (excluding Russia and other states of the former Soviet Union) related to certain clinical compounds and other pre-clinical compounds based on oxidized glutathione.

The Company is subject to a number of risks similar to those of other companies in an early stage of development. 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.

These financial statements have been prepared on the basis that the Company will continue as a going concern. The Company is devoting substantially all of its efforts toward the research and development of its products and has incurred operating losses since inception. The process of developing products will continue to require significant research and development, non-clinical testing, clinical trials and regulatory approval. The Company expects that these activities, together with general and administrative costs, will result in continuing operating losses for the foreseeable future. The Company believes that it has adequate funds, including the proceeds from the sale of preferred stock in February 2009, to continue operations into late 2009. The Company's ability to execute its operating plan beyond late 2009 is dependent on its ability to obtain additional capital (including through the sale of equity and debt securities and by entering into collaborative arrangements for licensing rights in North America) to fund its development activities. The Company plans to actively pursue these alternatives during 2009, but there can be no assurance that it will obtain the additional capital necessary to fund its business beyond the end of 2009. The Company anticipates that the results from its Phase 3 clinical trial in non-small cell lung cancer will be available in late 2009. The primary endpoint of the trial is increased median overall survival, to be measured following the occurrence of 725 events (deaths). The timing and content of those clinical results may impact the Company's projected cash requirements and its ability to obtain capital. Furthermore, continuing difficult conditions in the capital markets globally may adversely affect the ability of the Company to obtain funding in a timely manner. The Company is continuously evaluating measures to further reduce costs to preserve existing capital. If the Company is unable to obtain sufficient additional funding, it will be required, beginning in late 2009, to scale back its administrative activities and clinical development programs including the Phase 3 clinical development of its lead drug candidate, NOV-002.

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.

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 assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and disclosure of contingent assets and liabilities. Management's estimates are based primarily on relevant historical experience and other assumptions that management believes to be reasonable. Estimates include those for unbilled contract service fees such as amounts due to clinical research organizations, clinical investigators and contract manufacturers. Actual results could differ from those estimates.

Cash Equivalents — The Company considers all short-term investments purchased with original maturities of three months or less to be cash equivalents.

Restricted Cash — Restricted cash at December 31, 2007 consisted of cash pledged as security on a letter of credit agreement with a bank. The letter of credit expired in 2008.

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, which range from three to five years. Leasehold improvements are depreciated over the lesser of the estimated useful lives of the assets or the remaining lease term.

Impairment of Long-Lived Assets — Whenever events or circumstances change, the Company assesses 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. There were no impairments of the Company's assets at the end of each period presented.

Stock-based Compensation — The Company applies the fair-value recognition provisions of Statement of Financial Accounting Standards (SFAS) No. 123(R), *Share-Based Payment* (SFAS 123R) in accounting for stock-based compensation. The Company accounts for share-based payments granted to non-employees in accordance with Emerging Issues Task Force (EITF) No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. See Note 6 for a further description of the Company's accounting policies related to stock-based compensation.

Revenue Recognition — Revenue is recognized when persuasive evidence of an arrangement exists, the price is fixed and determinable, delivery has occurred, and there is reasonable assurance of collection. Upfront payments received in connection with technology license or collaboration agreements are recognized over the estimated term of the related agreement. Milestone payments received in connection with license or collaboration agreements are recognized upon completion of the applicable milestones, provided that there are no further delivery obligations associated with the milestone. Royalty revenue will be recognized upon the receipt of royalty reports from third parties.

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

Income Taxes — The Company uses the liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on temporary differences between 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.

The Company adopted FIN 48, "*Accounting for Uncertainty in Income Taxes – an Interpretation of FASB Statement No. 109*", on the first day of its 2007 fiscal year. The implementation had no effect on the Company's reported financial position or results of operations in the year ended December 31, 2008.

Comprehensive Income (Loss) — The Company had no components of comprehensive income other than net loss in all of the periods presented.

Fair Value of Financial Instruments — SFAS No. 107*, Disclosures About Fair Value of Financial Instruments,* requires disclosure of the fair value of certain financial instruments. The Company's financial instruments consist of cash equivalents, accounts payable, accrued expenses and redeemable preferred stock. The estimated fair value of the redeemable preferred stock, determined on an as-converted basis, was $14,950,000 and $8,850,000 at December 31, 2008 and 2007, respectively. The estimated fair value of the remaining financial instruments approximates their carrying value due to their short-term nature.

Concentration of Credit Risk — Financial instruments that subject the Company to credit risk consist of cash and equivalents on deposit with financial institutions. The Company's excess cash is invested on an overnight basis in securities that are fully collateralized. When funds are not invested overnight, cash is on deposit in a non-interest-bearing transaction account that is fully covered by FDIC deposit insurance until December 31, 2009.

New Accounting Pronouncements — In June 2008 the Emerging Issues Task Force reached a consensus on Issue No. 07-5 *Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock* (EITF 07-5). EITF 07-5 establishes a framework for determining whether certain freestanding and embedded instruments are indexed to a company's own stock for purposes of evaluation of the accounting for such instruments under existing accounting literature. EITF 07-5 is effective for fiscal years beginning after December 15, 2008. The Company is currently evaluating the impact of this standard on its financial statements and anticipates that effective January 1, 2009, the fair value of certain outstanding warrants containing anti-dilution provisions, issued in 2005 and 2006, will be required to be reclassified from equity to a liability and revalued on a quarterly basis, with changes in fair value recognized as a component of earnings or loss.

In December 2007 the Emerging Issues Task Force reached a consensus on Issue No. 07-1 *Accounting for Collaborative Arrangements* (EITF 07-1). EITF 07-1 defines collaborative arrangements and establishes reporting requirements for transactions between participants in a collaborative arrangement and between participants in the arrangement and third parties. EITF 07-1 is effective for fiscal years beginning after December 15, 2008. The Company is currently evaluating the impact of this standard on its financial statements and related disclosures.

In June 2007, the Emerging Issues Task Force reached a consensus on Issue No. 07-3 *Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities* (EITF 07-3). EITF 07-3 requires that nonrefundable advance payments for goods or services used or rendered for future research and development activities be deferred and capitalized and subsequently recognized as an expense as the goods are delivered or the related services are performed. EITF 07-3 is effective for fiscal years beginning after December 15, 2007 and interim periods within those fiscal years with no earlier application permitted. This standard had no effect on the Company's reported financial position or results of operations in the year ended December 31, 2008.

In February 2007, the Financial Accounting Standards Board (FASB) issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities – Including an Amendment to FASB Statement No. 115* (SFAS 159). SFAS 159 permits entities to choose to measure many financial instruments and certain other items at fair value. SFAS 159 is effective for financial statements issued for fiscal years beginning after November 15, 2007. This standard had no effect on the Company's reported financial position or results of operations in the year ended December 31, 2008.

3. FIXED ASSETS

Fixed assets consisted of the following at December 31:

	2008	2007
Office and computer equipment	$ 73,261	$ 51,652
Computer software	25,896	7,896
Leasehold improvements	4,095	4,095
Total fixed assets	103,252	63,643
Less accumulated depreciation and amortization	(44,801)	(30,834)
Fixed assets, net	$ 58,451	$ 32,809

4. STOCKHOLDERS' EQUITY (DEFICIENCY)

2005 Issuance of Common Stock –

From May 27, 2005 through August 9, 2005, the Company completed a private offering of securities, exempt from registration under the Securities Act of 1933, in which it sold to accredited investors 4,000,000 shares of common stock and issued 2,000,000 common stock warrants (initially exercisable at $2.25 per share) for net cash proceeds of approximately $3,715,000 (net of cash issuance costs of approximately $735,000) and conversion of debt and accrued interest of $550,000. In connection with the private placement, the Company also issued 125,000 shares of common stock to placement agents with a value of approximately $156,000 and issued 340,000 common stock warrants to placement agents and finders at an initial exercise price of $2.00 per share. Pursuant to anti-dilution provisions, the number of warrants issued to investors, placement agents and finders as well as the exercise price of the warrants have changed. On August 11, 2008, warrants to purchase 6,923,028 shares of preferred stock at an exercise price of $.65 per share expired unexercised. These warrants were issued in 2005 to the purchasers of shares of common stock. At December 31, 2008, warrants to purchase 1,046,143 shares of common stock at an exercise price of $0.65 per share held by placement agents remain outstanding.

Issuance of Series A Preferred Stock *–*

On September 30, 2005 and October 3, 2005, the Company sold, in a private placement, a total of 3,200 shares of its Series A 8% Cumulative Convertible Preferred Stock ("Series A Preferred Stock") with a stated value of $1,000 per share and 969,696 common stock warrants for net proceeds of $2,864,000, net of issuance costs of $336,000. See "Issuance of Series C Preferred Stock" below for a description of the exchange of Series A Preferred Stock that occurred in May 2007. The warrants issued in connection with the sale of Series A Preferred Stock had anti-dilution provisions that provided for adjustments to the exercise price upon the occurrence of certain events. Pursuant to these anti-dilution provisions the exercise price of the warrants was subsequently adjusted and as of December 31, 2008, the warrants are exercisable at $0.65 per share.

2006 Issuance of Common Stock *–*

On March 7, 2006, the Company completed a private offering of securities, exempt from registration under the Securities Act of 1933, in which it sold to accredited investors 11,154,073 shares of common stock at $1.35 per share and warrants to purchase 8,365,542 shares of its common stock exercisable at $2.50 per share for net cash proceeds of approximately $13,847,000 (net of issuance costs of approximately $1,211,000, including placement agent fees of approximately $1,054,000). In connection with the private placement, the Company issued 669,244 common stock warrants (exercisable at $2.50 per share) to the placement agents. Pursuant to anti-dilution provisions, as a result of subsequent financings, as of December 31, 2008, the number of shares of common stock issuable upon exercise of the warrants issued to investors and placement agents was 11,267,480 and the exercise price was $2.00 per share. On February 11, 2009, the number and exercise price of the warrants was adjusted further. See Note 10.

Issuance of Series B Preferred Stock *–*

On May 2, 2007, pursuant to a securities purchase agreement with accredited investors dated April 12, 2007 (the "Purchase Agreement"), as amended May 2, 2007, the Company sold 300 shares of a newly created series of preferred stock, designated "Series B Convertible Preferred Stock", with a stated value of $50,000 per share (the "Series B Preferred Stock"), and issued warrants (the "Series B Warrants") to purchase 7,500,000 shares of common stock for an aggregate purchase price of $15,000,000. The Series B Preferred Stock was initially convertible into 15,000,000 shares of common stock at $1.00 per share. During 2008, the Company declared and paid $675,000 in dividends to Series B stockholders ($2,250 per share). During 2007, the Company declared dividends totaling $900,000 ($3,000 per share) to Series B preferred stockholders; $562,500 ($1,875 per share) of that amount was paid in cash during 2007. See "Issuance of Series D Preferred Stock" below for a description of the exchange of Series B Preferred Stock that occurred on April 11, 2008.

The common stock purchase warrants issued to these purchasers are exercisable for an aggregate of 7,500,000 shares of the Company's common stock at an initial exercise price of $1.25 per share and had an initial expiration date of May 2012. The warrant exercise price and/or number of warrants is subject to adjustment only 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. If there is an effective registration statement covering the shares underlying the warrants and the volume weighted average price ("VWAP"), as defined in the warrant, of the Company's common stock exceeds $2.50 for 20 consecutive trading days, then on the 31st day following the end of such period any remaining warrants for which a notice of exercise was not delivered will no longer be exercisable and will be converted into a right to receive $.01 per share. See "Issuance of Series D Preferred Stock" and Note 10 below for descriptions of amendments to the Series B Warrants that were executed on April 11, 2008 and February 11, 2009.

The Company and these purchasers entered into a registration rights agreement in connection with the closing of the sale of the Series B Preferred Stock. The registration rights agreement was subsequently amended on April 11, 2008 and on February 11, 2009. The agreement, as amended, requires the Company to use its best efforts to keep a registration statement covering 12,000,000 shares of common stock continuously effective under the Securities Act until the earlier of the date when all securities covered by the registration statement have been sold or the second anniversary of the closing. In the event the Company does not fulfill the requirements of the registration rights agreement, the Company is required to pay to the investors liquidated damages equal to 1.5% per month of the aggregate purchase price of the preferred stock and warrants until the requirements have been met. The 12,000,000 shares of common stock were included on a registration statement that became effective on April 28, 2008.

Upon the closing of the Series B Preferred Stock financing the Company issued to placement agents warrants to purchase a total of 900,000 shares of common stock with the same terms as the warrants issued to the investors.

Issuance of Series C Preferred Stock –

As a condition to closing of the sale of Series B Preferred Stock described above, the Company entered into an agreement to exchange and consent with the holders of the Series A Preferred Stock providing for the exchange of all 3,264 shares of Series A Preferred Stock for 272 shares of a new Series C convertible preferred stock ("Series C Preferred Stock"), junior to the Series B Preferred Stock as set forth in the Series C Preferred Stock Certificate of Designations. The Series C Preferred Stock was initially convertible at $1.00 per share into 3,264,000 shares of common stock. As part of the exchange, the Company issued to the holders of the Series A Preferred Stock warrants to purchase 1,333,333 shares of common stock expiring on May 2, 2012 at a price of $1.25 per share; paid them a cash allowance to defray expenses totaling $40,000; and paid them an amount of cash equal to unpaid dividends accumulated through the date of the exchange. The fair value of the warrants at the date of issuance calculated using the Black-Scholes valuation method was $1,138,698. The valuation was based on estimated volatility of 80%, a discount rate of 4.55%, and a term of 5 years. The total of the fair value of the warrants and the cash payment of $40,000 has been reflected as a deemed dividend to preferred stockholders in the statement of operations. Pursuant to the exchange agreement, the holders of the Series C preferred stock retained registration and related rights substantially identical to the rights that they had as holders of the Series A Preferred Stock.

Terms of the Series C Preferred Stock

The Series C Preferred Stock had an annual dividend rate of 8% until October 1, 2008 and thereafter has an annual dividend rate of 20%. The dividends are payable quarterly. Such dividends shall be paid only after all outstanding dividends on the Series D Preferred Stock (with respect to the current fiscal year and all prior fiscal years) shall have been paid to the holders of the Series D Preferred Stock. During 2008, the Company paid $65,280 in dividends on Series C Preferred Stock ($240 per share). During 2007, the Company declared and paid dividends totaling $173,355 ($637 per share) to Series C preferred stockholders. As of December 31, 2008, there were accumulated unpaid dividends of $294,000 ($1,080 per share) on Series C Preferred Stock. The conversion price is subject to adjustment for stock dividends, stock splits or similar capital reorganizations. The Series C Preferred Stock does not have voting rights and is redeemable only at the option of the Company upon 30 days' notice at a 20% premium plus any accrued but unpaid dividends. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company's affairs, the Series C Preferred stock will be treated as senior to Novelos common stock. After all required payments are made to holders of Series D Preferred Stock, the Series C Preferred stockholders will be entitled to receive first, $12,000 per share and all accrued and unpaid dividends. If, upon any winding up of the Company's affairs, the Company's remaining assets available to pay the holders of Series C preferred stock are not sufficient to permit the payment in full, then all of the Company's assets will be distributed to the holders of Series C preferred stock (and any remaining holders of Series D preferred stock as may be required) on a pro rata basis.

Adjustment of Series C Preferred Stock Conversion Price

In connection with the sale of Series D Preferred Stock described below, the conversion price of the Series C Preferred Stock was reduced to $0.65 and became convertible into 5,021,537 shares of common stock.

Issuance of Series D Preferred Stock –

On April 11, 2008, pursuant to a securities purchase agreement with accredited investors dated March 26, 2008, as amended on April 9, 2008, the Company sold 113.5 shares of Series D Convertible Preferred Stock, par value $0.00001 per share (the "Series D Preferred Stock") and issued warrants (the "Series D Warrants") to purchase 4,365,381 shares of its common stock for an aggregate purchase price of $5,675,000 (the "Series D Financing").

Exchange of Series B Preferred Stock for Series D Preferred Stock

In connection with the closing of the Series D Financing, the holders of the Company's Series B Preferred Stock, exchanged all 300 of their shares of Series B Preferred Stock for 300 shares of Series D Preferred Stock. Following the exchange, no shares of Series B Preferred Stock are outstanding. The rights and preferences of the Series D Preferred Stock are substantially the same as the Series B Preferred Stock. However, the conversion price of the Series D Preferred Stock is $0.65. In addition, the holders of Series B Preferred Stock waived liquidated damages that had accrued from September 7, 2007 through the closing date as a result of the Company's failure to register for resale 100% of the shares of common stock underlying the Series B Preferred Stock and warrants. As a result, during 2008, the Company recorded a reduction of general and administrative expenses of $395,000 relating to the reversal of estimated liquidated damages that had been accrued through the date of the closing. The purchase agreement covering the issuance and sale of the Series D Preferred Stock provided that the dividends that accrued on the shares of Series B Preferred Stock from April 1, 2008 through the date of exchange were to be paid, out of legally available funds, on June 30, 2008. As of June 30, September 30, and December 31, 2008 the Company did not have legally available funds for the payment of dividends under Delaware corporate law and therefore was not able to pay any dividends accrued in respect of the preferred stock totaling $1,396,000 ($3,375 per share).

Terms of Series D Preferred Stock

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

The holders of Series D Preferred Stock are entitled to vote on all matters on which the holders of common stock are entitled to vote. Each holder of Series D Preferred Stock is entitled to a number of votes equal to the number of shares of common stock that would have been issued to such holder if the Series D Preferred Stock had been converted at the record date for the meeting of stockholders.

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

The Series D Preferred Stock ranks senior to all other outstanding series of preferred stock and common stock as to the payment of dividends and the distribution of assets upon voluntary or involuntary liquidation, dissolution or winding up of the Company's affairs. The Series D preferred stockholders will be entitled to receive first, $50,000 per share and all accrued and unpaid dividends. Subject to any distributions that are required for any other series of preferred stock, the Series D preferred stockholders are then entitled to participate with the holders of the common stock in the distribution of remaining assets on a pro rata basis. If, upon any winding up of the Company's affairs, assets available to pay the holders of Series D Preferred Stock are not sufficient to permit the payment in full, then all assets will be distributed to the holders of Series D Preferred Stock on a pro rata basis. If the Company sells, leases or otherwise transfers substantially all of its assets, consummates a business combination in which it is not the surviving corporation or, if it is the surviving corporation, if the holders of a majority of the common stock immediately before the transaction do not hold a majority of common stock immediately after the transaction, in one or a series of events, change the majority of the members of the board of directors, or if any person or entity (other than the holders of Series D Preferred Stock) acquires more than 50% of the Company's outstanding stock, then the holders of Series D Preferred Stock are entitled to receive the same liquidation preference as described above, except that after receiving $50,000 per preferred share and any accrued but unpaid dividends, they are not entitled to participate with the holders of any other series of preferred or common stock in a distribution of the remaining assets.

For as long as any shares of Series D Preferred Stock remain outstanding, the Company is prohibited from (i) paying dividends to its common stockholders, (ii) amending its certificate of incorporation, (iii) issuing any equity security or any security convertible into or exercisable for any equity security at a price of $0.65 or less or with rights senior to the Series D Preferred Stock (except for certain exempted issuances), (iv) increasing the number of shares of Series D Preferred Stock or issuing any additional shares of Series D Preferred Stock, (v) selling or otherwise disposing of all or substantially all of its assets or intellectual property or entering into a merger or consolidation with another company unless the Company is the surviving corporation, the Series D Preferred Stock remains outstanding and there are no changes to the rights and preferences of the Series D Preferred Stock, (vi) redeeming or repurchasing any capital stock other than Series D Preferred Stock, (vii) incurring any new debt for borrowed money in excess of $500,000 and (viii) changing the number of directors. The Company is required to reserve, out of authorized shares of common stock, 100% of the number of shares of common stock into which Series D Preferred Stock is convertible.

Board and Observer Rights

Pursuant to the Series D Preferred Stock purchase agreement, from and after the closing, Xmark Opportunity Fund, L.P., Xmark Opportunity Fund, Ltd. and Xmark JV Investment Partners, LLC (collectively, the "Xmark Entities"), retained the right to designate one member to the Company's Board of Directors. This right shall last until such time as the Xmark Entities no longer hold at least one-third of the Series D Preferred Stock issued to them at closing. In addition, the Xmark Entities, Caduceus Master Fund Limited, Caduceus Capital II, L.P., Summer Street Life Sciences Hedge Fund Investors, LLC, UBS Eucalyptus Fund, LLC and PW Eucalyptus Fund, Ltd. (collectively, the "Series D Lead Investors") have the right to designate one observer to attend all meetings of the Company's Board of Directors, committees thereof and access to all information made available to members of the Board. This right shall last until such time as the Series D Lead Investors no longer hold at least one-third of the Series D Preferred Stock issued to them at closing. The rights to designate a board member and board observer have not yet been exercised.

Common Stock Purchase Warrants

The Series D Warrants are exercisable for an aggregate of 4,365,381 shares of the Company's common stock at an exercise price of $0.65 per share and expire in April 2013. If after the six-month anniversary of the date of issuance of the warrants there is no effective registration statement registering, or no current prospectus available for, the resale of the shares issuable upon the exercise of the warrants, the holder may conduct a cashless exercise whereby the holder may elect to pay the exercise price by having the Company withhold, upon exercise, shares having a fair market value equal to the applicable aggregate exercise price. In the event of such a cashless exercise, the Company would receive no proceeds from the sale of common stock in connection with such exercise.

The warrant exercise price and/or number of warrants is subject to adjustment only 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.

If there is an effective registration statement covering the shares underlying the warrants and the VWAP, as defined in the warrant, of the Company's common stock exceeds $2.50 for 20 consecutive trading days, then on the 31st day following the end of such period any remaining warrants for which a notice of exercise was not delivered shall no longer be exercisable and shall be converted into a right to receive $.01 per share.

See Note 10 for a description of an amendment to Series D Warrants that was executed on February 11, 2009.

Registration Rights Agreement

The Company entered into a registration rights agreement with these purchasers that requires the Company to file with the Securities and Exchange Commission no later than 5 business days following the six-month anniversary of the closing of the Series D Financing, a registration statement covering the resale of (i) a number of shares of common stock equal to 100% of the shares issuable upon conversion of the Series D Preferred Stock (excluding 12,000,000 shares of common stock issuable upon conversion of the Series D Preferred Stock that were included on a prior registration statement), (ii) a number of shares of common stock equal to 100% of the shares issuable upon exercise of the warrants issued in the Series D Financing and (iii) 7,500,000 shares of common stock issuable upon exercise of warrants dated May 2, 2007 held by the investors. The Company is required to use its best efforts to have the registration statement declared effective and keep the registration statement continuously effective under the Securities Act until the earlier of the date when all the registrable securities covered by the registration statement have been sold or the second anniversary of the closing. In the event the Company fails to file the registration statement within the timeframe specified by the Registration Rights Agreement, the investors are entitled to receive liquidated damages equal to 1.5% per month (pro-rated on a daily basis for any period of less than a full month) of the aggregate purchase price of the Series D Preferred Stock and warrants until the Company files the delinquent registration statement. The Company is allowed to suspend the use of the registration statement for not more than 15 consecutive days or for a total of not more than 30 days in any 12-month period. The registration statement was required to be filed by October 18, 2008. As of December 31, 2008, the registration statement had not been filed. However, the Company had not concluded that it was probable that damages would become due. Therefore, no accrual for damages has been recorded. In connection with a financing that was completed on February 11, 2009, the damages from October 18, 2008 through February 11, 2009 under the Registration Rights Agreement were waived and the Registration Rights Agreement was replaced with an agreement requiring that a registration statement be filed in August 2009. See Note 10.

Placement Agent Fee and Other Costs

Following the closing of the Series D Financing, the Company paid Rodman & Renshaw LLC a cash fee of $100,000 and paid other closing costs of approximately $105,000.

Amendments to Prior Warrants and Registration Rights Agreement

At the closing, the Company entered into an amendment to the registration rights agreement dated May 2, 2007 with the holders of its Series B Preferred Stock to revise the definition of registrable securities under the agreement to include only the 12,000,000 shares of common stock that were included on a prior registration statement and to extend the registration obligations under the agreement by one year. On April 28, 2008, the amended registration statement covering the 12,000,000 shares of common stock required to be registered was declared effective. Accordingly, the Company has not accrued any liquidated damages at December 31, 2008 in connection with its registration obligation under the agreement. If the Company is unable to maintain the effectiveness of that registration statement through April 11, 2010, the Company may become liable for liquidated damages in future periods.

In addition, in connection with the closing, the warrants to purchase common stock issued in connection with the sale of Series B Preferred Stock were amended to conform the terms of those warrants to the terms of the warrants issued in the Series D Financing.

Exchange of Series D Preferred Stock for Series E Preferred Stock

On February 11, 2009 all outstanding shares of Series D Preferred Stock and accumulated dividends thereon were exchanged for shares of Series E preferred stock. See Note 10.

Accounting Treatment of Series B and Series D Preferred Stock

The terms of the Series B Preferred Stock contained provisions that allow the holders to elect to receive a liquidation payment in circumstances that are beyond the Company's control. Therefore the shares have been recorded as redeemable preferred stock outside of permanent equity in the balance sheet. The shares were initially recorded at their estimated as-converted fair value of $19,050,000, net of cash issuance costs of $1,306,949. That value was further reduced by the intrinsic value of the beneficial conversion feature of $7,824,385. As a result of the effective adjustment to the conversion price of preferred stock and the adjustment to the exercise price of warrants that occurred in connection with the exchange of all outstanding shares of Series B Preferred Stock for shares of Series D Preferred Stock, in the quarter ended June 30, 2008, a deemed dividend of $4,598,961 was recorded. This amount represents the incremental fair value on the date of the exchange resulting from the adjustment to the conversion price of the Series B Preferred Stock from $1.00 to $0.65 ($3,876,912) and the exercise price of the warrants from $1.25 to $0.65 ($722,049). These amounts were recorded as both debits and credits to temporary and permanent equity, respectively, in the year ended December 31, 2008. The incremental fair value of the adjustment to the conversion price of the Series B Preferred Stock was determined based on the market value of the additional 8,076,900 shares of common stock that became issuable following the exchange. The incremental fair value of the modification to the warrants was the difference between the fair value of the warrants immediately before and after modification using the Black-Scholes option pricing model. The fair value of the warrants prior to modification was calculated based on an estimated volatility of 80%, a discount rate of 2.34% and a term of 4.08 years. The fair value of the warrants after the modification was calculated based on an estimated volatility of 80%, a discount rate of 2.57% and a term of 5 years.

Since the terms of the Series D Preferred Stock also contain provisions that may require redemption in circumstances that are beyond the Company's control, the shares have been recorded as redeemable preferred stock outside of permanent equity in the balance sheet as of December 31, 2008. The gross proceeds of $5,675,000 received in conjunction with the Series D Financing were allocated on a relative fair-value basis between the Series D Preferred Stock and the warrants. The relative fair-value of the Series D Warrants of $1,302,592 was recorded as additional paid-in capital while the relative fair value of the Series D Preferred Stock of $4,372,408 was recorded as temporary equity. The carrying value of the Series D Preferred Stock was immediately adjusted to its fair value of $4,190,762 based on the fair value of the as-converted common stock. The difference of $181,646 was recorded as a reduction to the deemed dividend described above. Issuance costs related to the Series D Financing of $205,328 were netted against temporary equity. The total carrying value of temporary equity at December 31, 2008 of $13,904,100 consists of the $9,918,666 carrying value of the Series B Preferred Stock on the date of exchange plus the $3,985,434 carrying value of the Series D Preferred Stock issued in the Series D Financing. The fair value of the Series D warrants was calculated using the Black-Scholes pricing model with a volatility of 80%, a discount rate of 2.57% and a term of 5 years.

Since the Company has concluded it is not probable that an event will occur which would allow the holders of Series D Preferred Stock to elect to receive a liquidation payment, the carrying value will not be adjusted until the time that such event becomes probable. The liquidation preference (redemption value) is $22,070,562 at December 31, 2008.

2008 Issuance of Common Stock –

On August 15, 2008, the Company sold 4,615,384 shares of its common stock to two related accredited investors for gross proceeds of approximately $3,000,000, pursuant to a securities purchase agreement dated August 14, 2008.

The Common Stock Purchase Agreement provides that on and after six months following the closing, if there is not an available exemption from Rule 144 under the Securities Act to permit the sale of the common stock by the purchasers, then the Company will use its best efforts to file a registration statement (the "Registration Statement") under the Securities Act with the SEC covering the resale of the common stock. It further provides that the Company will use its best efforts to maintain the effectiveness of the Registration Statement until one year from closing or until all the common stock has been sold or transferred, whichever occurs first.

This purchase agreement also provides that if, prior to the public announcement of the conclusion of the Company's NOV-002 Phase 3 clinical trial in non-small cell lung cancer, the Company completes a Subsequent Equity Financing (as defined therein) and the holders of shares of Series D Preferred Stock receive, as consideration for their consent to such a financing, a reduction in the effective conversion price or exercise price, as applicable, of the shares of Series D Preferred Stock or common stock purchase warrants issued in connection therewith, or additional shares of common stock, then the purchasers will be entitled to receive additional shares of common stock based on the formula detailed in the purchase agreement.

Common Stock Warrants — The following table summarizes information with regard to outstanding warrants issued in connection with equity and debt financings as of December 31, 2008.

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

(1) Concurrently with the closing of the Series B Preferred Stock financing, all shares of Series A Preferred Stock were exchanged for shares of Series C Preferred Stock.
(2) In connection with the financing described in Note 10 as a subsequent event, the number of shares of common stock underlying warrants issued in connection with the 2006 Issuance of Common Stock was increased to 12,379,848 and the exercise price was decreased to $1.82.

No warrants have been exercised as of December 31, 2008. On August 11, 2008, warrants to purchase 6,923,028 shares of common stock expired unexercised.

Reserved Shares — The following shares were reserved for future issuance upon exercise of stock options or warrants or conversion of preferred stock as of the dates indicated:

	December 31,	
	2008	2007
2000 Stock Option Plan	56,047	73,873
2006 Stock Incentive Plan	4,770,000	2,220,000
Options issued outside of formalized plans	2,453,778	2,553,778
Warrants	28,102,033	28,973,047(1)
Preferred stock	36,829,192	22,014,000(1)
Total shares reserved for future issuance	72,211,050	55,834,698

(1) The amount of reserved shares includes shares reserved in excess of the number currently exercisable or convertible in accordance with the related financing agreements.

Authorized Shares — There is a total of 150,000,000 shares of common stock authorized for issuance.

5. 2007 COLLABORATION AGREEMENT

In December 2007 the Company entered into a Collaboration Agreement with Lee's Pharmaceutical (HK) Ltd. ("Lee's Pharma"). Pursuant to the agreement, Lee's Pharma obtained an exclusive license to develop, manufacture and commercialize NOV-002 and NOV-205 in Hong Kong, Macau, China and Taiwan (the "territory"). Under the terms of the agreement the Company received a license fee of $500,000 in March 2008 and is entitled to receive up to $1,700,000 in future milestone payments upon the completion of development and marketing milestones by Lee's Pharma. This initial $500,000 payment received is being amortized over the estimated term of the agreement, 15 years. Accordingly, $33,334 of license revenue was recognized in the year ended December 31, 2008.

The Company will receive royalty payments of 20-25% of net sales of NOV-002 in the territory and will receive royalty payments of 12-15% of net sales of NOV-205 in the territory. Lee's Pharma will also reimburse the Company for the manufacturing cost of pharmaceutical products provided to Lee's Pharma in connection with the agreement. Lee's Pharma has committed to spend a minimum amount on development in the first four years of the agreement. The agreement expires upon the expiration of the last patent covering any of the licensed products, or twelve years from the date of the first commercial sale in China, whichever occurs later.

6. STOCK-BASED COMPENSATION

The Company's stock-based compensation plans are summarized below:

2000 Stock Option Plan. The Company's stock option plan established in August 2000 (the "2000 Plan") provides for grants of options to purchase up to 73,873 shares of common stock. Grants may be in the form of incentive stock options or nonqualified options. The board of directors determines exercise prices and vesting periods on the date of grant. Options generally vest annually over three years and expire on the tenth anniversary of the grant date. No options were granted or exercised under the 2000 Plan during 2007 or 2008. During 2008, options to purchase 17,826 shares of common stock were canceled.

2006 Stock Incentive Plan. On May 1, 2006, the Company's board of directors adopted, and on July 21, 2006 the Company's stockholders approved, the 2006 Stock Incentive Plan (the "2006 Plan"). A total of 5,000,000 shares of common stock are reserved for issuance under the 2006 Plan for grants of incentive or nonqualified stock options, rights to purchase restricted and unrestricted shares of common stock, stock appreciation rights and performance share grants. A committee of the board of directors determines exercise prices, vesting periods and any performance requirements on the date of grant, subject to the provisions of the 2006 Plan. Options are granted at or above the fair market value of the common stock at the grant date and expire on the tenth anniversary of the grant date. Vesting periods are generally two to three years. In the years ended December 31, 2008 and 2007, stock options for the purchase of 2,560,000 and 1,380,000 shares of common stock, respectively, were granted under the 2006 Plan. During 2008, options to purchase 10,000 shares of common stock were canceled. There have been no exercises under the 2006 Plan. As of December 31, 2008, 230,000 remain available for grant under the 2006 Plan. Options granted pursuant to the 2006 Stock Incentive Plan generally will become fully vested upon a termination event occurring within one year following a change in control, as defined. A termination event is defined as either termination of employment or services other than for cause or constructive termination of employees or consultants resulting from a significant reduction in either the nature or scope of duties and responsibilities, a reduction in compensation or a required relocation.

Other Stock Option Activity. During 2005 and 2004, the Company issued a total of 2,653,778 stock options to employees, directors and consultants outside of any formalized plan. These options are exercisable within a ten-year period from the date of grant, and vest at various intervals with all options being fully vested within two to three years of the grant date. The options are not transferable except by will or domestic relations order. The option price per share is not less than the fair market value of the shares on the date of the grant. During the years ended December 31, 2008 and 2007, options to purchase 100,000 and 25,000 shares, respectively, were exercised.

Accounting for Stock-Based Compensation

The Company accounts for employee stock-based compensation in accordance with SFAS 123R. SFAS 123R 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. The Company accounts for non-employee stock-based compensation in accordance with Emerging Issues Task Force (EITF) No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. EITF 96-18 requires that companies recognize compensation 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 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 and restricted stock awards granted to non-employee consultants:

	Year Ended December 31,	
	2008	**2007**
Employee and director stock option grants:		
Research and development	$ 159,519	$ 163,558
General and administrative	235,675	179,675
	395,194	343,233
Non-employee consultants stock option grants and restricted stock awards:		
Research and development	24,131	17,233
General and administrative	34,002	142,824
	58,133	160,057
Total stock-based compensation	$ 453,327	$ 503,290

On May 13, 2008, the Company entered into a separation agreement with M. Taylor Burtis, a former officer of the Company, that provided, among other terms that all 166,667 unvested options held by Ms. Burtis as of May 13, 2008 were immediately vested and that she will have until December 31, 2009 to exercise the total 350,000 options held by her, at which time any unexercised options will expire. The 2008 stock-based compensation for research and development employees included in the table above includes incremental stock-based compensation expense of $23,700 that was recorded in connection with the modification of the option terms.

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 determined based on the Company's estimate of fluctuation in its common stock price and its review of comparable public company data due to the limited amount of time that the Company's common stock has been publicly traded.

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 the Company's estimate of when options will be exercised in the future as there have been limited stock option exercises to date. The expected term is generally applied to one group as a whole as the Company does not expect substantially different exercise or post-vesting termination behavior within its employee population.

Forfeitures. As required by SFAS 123R, the Company records stock-based compensation expense only for those awards that are expected to vest. SFAS 123R 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. The Company has applied an annual forfeiture rate of 0% to all unvested options as of December 31, 2008 as the Company has experienced very few forfeitures to date and believes that 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,	
	2008	2007
Volatility	80%	80%
Weighted-average volatility	80%	80%
Risk-free interest rate	1.50%-3.28%	3.57%-4.66%
Expected life (years)	5	5
Dividend	0	0
Weighted-average exercise price	$ 0.46	$ 0.57
Weighted-average grant-date fair value	$ 0.30	$ 0.38

Stock Option Activity

A summary of stock option activity under the 2000 Plan, the 2006 Plan and outside of any formalized plan is as follows:

	Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contracted Term in Years	Aggregate Intrinsic Value
Outstanding at January 1, 2007	3,492,651	$ 0.70	8.4	$1,773,777
Options granted	1,380,000	$ 0.57		
Options exercised	(25,000)	$ 0.01		
Outstanding at December 31, 2007	4,847,651	$ 0.67	8.1	$1,308,961
Options granted	2,560,000	$ 0.46		
Options exercised	(100,000)	$ 0.01		
Options canceled	(27,826)	$ 2.23		
Outstanding at December 31, 2008	7,279,825	$ 0.60	7.9	$ 989,718
Exercisable at December 31, 2008	4,193,147	$ 0.68	6.6	$ 894,331

The aggregate intrinsic value of options outstanding is calculated based on the positive difference between the closing market price of the Company's common stock at the end of the respective period and the exercise price of the underlying options. During the year ended December 31, 2008 and 2007, the total intrinsic value of options exercised was $74,000 and $18,750, respectively and the total amount of cash received from exercise of these options was $1,000 and $250, respectively.

As of December 31, 2008 there was approximately $886,000 of total unrecognized compensation cost related to unvested share-based compensation arrangements. Of this total amount, 53%, 31% and 16% is expected to be recognized during 2009, 2010 and 2011, respectively. The Company expects 3,086,678 in unvested options to vest in the future. The weighted average grant-date fair value of vested and unvested options outstanding at December 31, 2008 was $0.41 and $0.31, respectively. The weighted average grant-date fair value of vested and unvested options outstanding at December 31, 2007 was $0.39 and $0.41, respectively. The fair value of options that vested during the years ended December 31, 2008 and 2007 was approximately $500,000 and $701,000, respectively.

7. INCOME TAXES

The Company's deferred tax assets consisted of the following at December 31:

	2008	2007
Net operating loss carryforwards	$ 7,128,000	$ 4,547,000
Research and development expenses	13,681,000	9,718,000
Tax credits	1,311,000	941,000
Capital loss carryforward	340,000	403,000
Stock-based compensation	449,000	375,000
Gross deferred tax asset	22,909,000	15,984,000
Valuation allowance	(22,909,000)	(15,984,000)
Net deferred tax asset	$ —	$ —

As of December 31, 2008, the Company had federal and state net operating loss carryforwards of approximately $19,018,000 and $12,367,000 respectively, which expire through 2028. In addition, the Company has federal and state research and development and investment tax credits of approximately $1,077,000 and $356,000, respectively which expire through 2028. The amount of net operating loss carryforwards which may be utilized annually in future periods may 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 capital loss carryforward relates to the loss recorded in prior years for Novelos' investment in an unrelated company.

Because of the Company's limited operating history, continuing losses and uncertainty associated with the utilization of the net operating loss carryforwards in the future, management has provided a 100% allowance against the Company's gross deferred tax asset. In both 2008 and 2007, the increase in the valuation allowance represents the principal difference between the Company's total statutory tax rate of approximately 40% and its effective rate of 0%.

In June 2006, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes-an Interpretation of FASB Statement No. 109* (FIN No. 48), which clarifies the accounting for uncertainty in income tax positions. This interpretation requires that the Company recognize in its financial statements the impact of a tax position if that position is more likely than not of being sustained on audit, based on the technical merits of the position. The provisions of FIN No. 48 are effective for financial statements for fiscal years beginning after December 15, 2006. The cumulative effect of applying the provisions of FIN No. 48, if any, are required to be recorded as an adjustment to accumulated deficit. The Company adopted FIN No. 48 effective January 1, 2007. Upon adoption, there was no adjustment to accumulated deficit as the Company had no unrecognized tax benefits, and there were no accrued interest amounts or penalties related to tax contingencies.

The Company did not have any unrecognized tax benefits or accrued interest and penalties at any time during the years ended December 31, 2008 and 2007, and does not anticipate having any unrecognized tax benefits over the next twelve months. The Company is subject to audit by the IRS for tax periods commencing January 1, 2005.

8. 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 by 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, warrants and convertible preferred stock. Since the Company has a net loss for all periods presented, the inclusion of stock options and warrants in the computation would be antidilutive. Accordingly, basic and diluted net loss per share are the same.

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

	Year Ended December 31,	
	2008	2007
Stock options	7,279,825	4,847,651
Warrants	28,102,033	26,873,047
Conversion of preferred stock	36,829,192	18,264,000

9. COMMITMENTS

On May 25, 2007, the Company entered into a twenty-six-month lease for office space, commencing July 1, 2007. Monthly rent is $7,175 per month for the first two months and $7,675 per month for the remaining 24 months. Rent expense was $92,100 and $81,450 for the years ended December 31, 2008 and 2007, respectively. Future minimum lease payments under this non-cancelable lease are $61,400 in 2009.

The Company is obligated to a Russian company, ZAO BAM, under a royalty and technology transfer agreement. Mark Balazovsky, a director of the Company until November 2006, is the majority shareholder of ZAO BAM. Pursuant to the royalty and technology transfer agreement between the Company and ZAO BAM, the Company is required to make royalty payments of 1.2% of net sales of oxidized glutathione-based products. The Company is 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 the Company is required to pay ZAO BAM 3% of all license revenues. If license revenues exceed the Company's 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 the Company would be required to pay ZAO BAM an additional 9% of the amount by which license revenues exceed the Company's cumulative expenditures. During 2008, the Company paid ZAO BAM $15,000, which was 3% of license payments received under the collaboration agreement described in Note 5. This amount is included in research and development expense on the statement of operations.

As a result of the assignment to Novelos of the exclusive worldwide intellectual property and marketing rights of oxidized glutathione (excluding Russia and the other states of the former Soviet Union), Novelos is obligated to the Oxford Group, Ltd. for future royalties. Simyon Palmin, a founder of Novelos, a director until August 12, 2008 and the father of the Company's president and chief executive officer, is president of Oxford Group, Ltd. Mr. Palmin was also an employee of the Company and is now a consultant to the Company. Pursuant to the agreement, as revised May 26, 2005, Novelos is required to pay Oxford Group, Ltd. a royalty in the amount of 0.8% of the Company's net sales of oxidized glutathione-based products.

On July 15, 2005, the Company entered into an employment agreement with Christopher J. Pazoles, whereby he agreed to serve as the Company's vice president of research and development for an initial term of two years. The agreement is automatically renewed for successive one-year terms unless notice of termination is provided by either party at least 60 days prior to the end of any such term. The agreement was renewed for an additional one-year term on July 15, 2008 in accordance with its terms. The agreement provides for a minimum salary of $195,000 during the current and any future terms as well as participation in standard benefit programs. The agreement further provides that upon resignation for good reason or termination without cause, both as defined, Dr. Pazoles will receive his base salary for the remainder of the contract term. In addition, his benefits will be paid for the twelve months following termination.

The Company entered into an employment agreement with Harry Palmin effective January 1, 2006, whereby he agreed to serve as the Company's president and chief executive officer for an initial term of two years. 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, 2009 in accordance with its terms. The agreement provides for an initial salary of $225,000, participation in standard benefit programs and an annual cash bonus at the discretion of the compensation committee. The agreement further provides that upon resignation for good reason or termination without cause, both as defined, Mr. Palmin will receive his pro rata share of the average of his annual bonus paid during the two fiscal years preceding his termination; his base salary and benefits for 11 months after the date of termination and fifty percent of his unvested stock options will vest. The agreement also contains a non-compete provision, which prohibits Mr. Palmin from competing with the Company for one year after termination of his employment with the Company.

10. SUBSEQUENT EVENTS

2009 Collaboration Agreement

On February 11, 2009 Novelos entered into a collaboration agreement (the "Collaboration Agreement") with Mundipharma International Corporation Limited ("Mundipharma") to develop manufacture and commercialize Licensed Products (as defined in the Collaboration Agreement), which includes the Company's lead compound, NOV-002, in Europe and Asia/Pacific (excluding China) (the "Territory"). Mundipharma is an independent associated company of Purdue Pharma. L.P. ("Purdue").

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

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

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

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

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

Issuance of Series E Preferred Stock

Sale of Series E Preferred Stock to Purdue Pharma

Concurrently with the execution of the Collaboration Agreement, Novelos sold to Purdue, an independent associated company of Mundipharma, 200 shares of a newly created series of the Company's preferred stock, designated "Series E Convertible Preferred Stock", par value $0.00001 per share (the "Series E Preferred Stock") and a warrant (the "Series E Warrant") to purchase 9,230,769 shares of Novelos common stock for an aggregate purchase price of $10,000,000 (the "Series E Financing"). Pursuant to the related securities purchase agreement with Purdue (the "Purchase Agreement"), Purdue has the right to designate one observer to attend all meetings of the Company's Board of Directors, committees thereof and access to all information made available to members of the Board. This right shall last until such time as Purdue no longer holds at least one-half of the Series E Preferred Stock issued to them at closing. Purdue has the right to participate in future equity financings with proceeds to the Company of at least $20 million.

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

Exchange of Series D Preferred Stock for Series E Preferred Stock

The Company also entered into an exchange agreement with the holders of Series D Preferred Stock under which all 413.5 outstanding shares of Series D Preferred Stock and accumulated but unpaid dividends thereon were exchanged for 445.442875 shares of Series E Preferred Stock. The rights and preferences of the Series E Preferred Stock are substantially the same as the Series D Preferred Stock. In addition, the holders of Series D Preferred Stock waived liquidated damages through the date of the exchange as a result of the Company's failure to file a registration statement covering the shares of common stock underlying the Series D Preferred Stock and warrants not otherwise registered. In connection with the execution of this exchange agreement, the Series B Warrants and the Series D Warrants were amended to extend the expiration of the warrants to December 31, 2015 and to remove the forced exercise provision. Also, the registration rights agreement dated May 2, 2007 with the holders of Series D Preferred Stock was amended to revise the definition of registrable securities under the agreement to refer to Series E Preferred Stock.

Terms of Series E Preferred Stock

The shares of Series E Preferred Stock have a stated value of $50,000 per share and are convertible into shares of common stock any time after issuance at the option of the holder at $0.65 per share of common stock for an aggregate of 49,649,446 shares of common stock. If there is an effective registration statement covering the shares of common stock underlying the Series E Preferred Stock and the VWAP, as defined in the Series E Certificate of Designations, of Novelos common stock exceeds $2.00 for 20 consecutive trading days, then the outstanding Series E Preferred Stock will automatically convert into common stock at the conversion price then in effect. The conversion price will be subject to adjustment for stock dividends, stock splits or similar capital reorganizations.

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

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

Registration Rights Agreement

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

Advisor Fees

Ferghana Partners, Inc. ("Ferghana"), a New York consulting firm, received a cash fee for their services in connection with the negotiation and execution of the Collaboration Agreement equal to $700,000 (or seven percent (7%) of the gross proceeds to the Company resulting from the sale of Series E Preferred Stock and Common Stock Purchase Warrants to Purdue in connection with the Collaboration Agreement). Ferghana will also receive cash fees equal to six percent (6%) of all payments to Novelos by Mundipharma under the Collaboration Agreement other than royalties on net sales.

Accounting Treatment

The Company is currently evaluating the accounting treatment for the Series E Financing and Collaboration Agreement. It is anticipated that the Series E Preferred Stock will be classified outside of permanent equity.