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

# FORM 10-KSB

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended: December 31, 2007

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

For the transition period from _____ to _____.

**Commission File Number 333-119366**

## NOVELOS THERAPEUTICS, INC.

(*Exact name of Registrant as specified in its Charter*)

| **Delaware** | **04-3321804** |
|---|---|
| (*State or other jurisdiction of incorporation or organization*) | (*I.R.S. Employer Identification No.*) |

**One Gateway Center, Suite 504**
**Newton, Massachusetts 02458**
(*Address of principal executive offices and zip code*)

Issuer's telephone number: (**617) 244-1616**

Securities registered pursuant to Section 12(b) of the Act:

| **Title of Class** | **Name of each exchange on which registered** |
|---|---|
| None | Not Applicable |

Securities Registered pursuant to Section 12(g) of the Act:

**None**
(Title of class)

Check whether the issuer is required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes ☒ No ☐

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

Check if there is no disclosure of delinquent filers in response to Item 405 of Regulation S-B contained in this form, and no disclosure will be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB. ☒

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

The issuer's revenues for its most recent fiscal year were $0.

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was sold, or the average bid and asked price of such common equity, as of a specified date within the past 60 days. (See definition of affiliate in Rule 12b-2 of the Exchange Act.) was: $26,446,000. As of March 14, 2008 there were 39,360,272 shares of the issuer's common stock outstanding.

Transitional Small Business Disclosure Format (check one): Yes ☐ No ☒

**NOVELOS THERAPEUTICS, INC.**

**FORM 10-KSB**

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*This annual report on Form 10-KSB contains forward-looking statements, which involve risks and uncertainties, such as our plans, objectives, expectations and intentions. You can identify these statements by our use of words such as "may," "expect," "believe," "anticipate," "intend," "could," "estimate," "continue," "plans," or their negatives or cognates. Some of these statements include discussions regarding our future business strategy and our ability to generate revenue, income and cash flow. We wish to caution the reader that all forward-looking statements contained in this Form 10-KSB are only estimates and predictions. Our actual results could differ materially from those anticipated as a result of risks facing us or actual events differing from the assumptions underlying such forward-looking statements. Readers are cautioned not to place undue reliance on any forward-looking statements contained in this annual report on Form 10-KSB. We will not update these forward-looking statements unless the securities laws and regulations require us to do so.*

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This annual report on Form 10-KSB contains trademarks and service marks of Novelos Therapeutics, Inc. Unless otherwise provided in this annual report on Form 10-KSB, trademarks identified by ™ are trademarks of Novelos Therapeutics, Inc. All other trademarks are the properties of their respective owners.

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## PART I

### ITEM 1. DESCRIPTION OF BUSINESS

**Business of the Issuer**

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 company 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 lung cancer under a Special Protocol Assessment and Fast Track. NOV-002 is also in Phase 2 development for chemotherapy-resistant ovarian cancer and early-stage breast cancer. NOV-205, our second compound, is in Phase 1b development for chronic hepatitis C non-responders. Both compounds have completed clinical trials in humans and have been approved for use in Russia, where they were originally developed.

NOV-002, our lead compound, acts as a chemoprotectant and an immunomodulator. In May 2006, we finalized a Special Protocol Assessment (SPA) with the FDA for a single pivotal Phase 3 trial 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 on March 13, 2008.

NOV-002 is also being developed to treat chemotherapy-resistant ovarian cancer. A U.S. Phase 2 trial is ongoing at Massachusetts General Hospital and Dana-Farber Cancer Institute. As of mid-2007, NOV-002 (plus chemotherapy) slowed disease progression in 60% of evaluable patients (6 out of 10 women). Further results are expected in March or April 2008.

NOV-002 is also being developed to treat early-stage breast cancer. These patients are often treated with chemotherapy to minimize surgical intervention. In June 2007 we commenced enrollment in a U.S. Phase 2 trial in order to evaluate the ability of NOV-002 to enhance the effectiveness of such chemotherapy while diminishing dose-limiting side-effects. Interim results are expected in mid-2008.

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 was accepted by the FDA in April 2006. 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 second half of 2008.

Our intellectual property portfolio of issued patents includes five 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. The breadth of our intellectual property will also 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 a number of different cancers. The Russian data is particularly compelling in non-small cell lung cancer and platinum-resistant ovarian cancer, indications with large and growing unmet medical needs. In a 1996-1998 Russian non-small cell lung cancer trial, NOV-002 increased the one-year survival rate from 17% to 63% when used in combination with chemotherapy. This result represents 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 reinforced 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 mid-2009). In the nearer term, we plan to out-license NOV-002 in Europe and/or Japan and use resources from these potential arrangements to offset, in part, the expense of our development. In December 2007, we entered into a collaboration agreement with Lee's Pharmaceutical (HK) Ltd (which is 30% owned by Sigma-Tau Group) to develop, manufacture and commercialize NOV-002 for cancer and NOV-205 for hepatitis in Hong Kong, Macau, China and Taiwan.

In 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 will concentrate clinical development efforts on chronic hepatitis C, which should represent a more direct path to regulatory approval as well as providing patients with an improved therapy regimen. In December 2007, based on a favorable safety profile, we concluded a U.S. Phase 1b clinical trial in chronic hepatitis C non-responders. We plan to commence a proof-of-concept trial in the second half of 2008 and will explore out-license opportunities for NOV-205 after completion of this trial.

**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 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, 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, 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, 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 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 being developed to be used in combination with chemotherapy for treatment of lung, ovarian and breast cancer.

***NOV-002 for Non-Small Cell Lung Cancer***

In the U.S., NOV-002 is in Phase 3 development for 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 340 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 2007. Over 550,000 U.S. cancer patients were expected to die in 2007, 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. Approximately 213,000 people were expected to be diagnosed with lung cancer in 2007, with over 160,000 deaths. According to a Rodman and Renshaw report dated December 2006, there are approximately 405,000 cases of lung cancer among industrial nations and the pharmaceutical market for treating lung cancer is currently approximately $800 million per year in the U.S. and $1.8 billion worldwide, expected to grow to greater than $8 billion 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 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 absence of 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 NSCLC 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) and higher tolerance of chemotherapy versus the control group. 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% (versus 35% typical in the U.S.). On the basis of U.S. and Russian data, we expect that NOV-002 will be used in combination with first-line chemotherapy treatments and may be complementary to second-line and recently emerging third-line products. Furthermore, we expect 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 (including clinical safety and efficacy, 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 study was to demonstrate safety, detect trends towards efficacy, compare routes of administration and support initiation of a Phase 3 study. 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 mid-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 (patients who had not received prior chemotherapy) were randomized to one of three groups for six months of treatment:

- Group A: NOV-002, administered intravenously and intramuscularly, in combination with cytotoxic chemotherapy (carboplatin + paclitaxel).

- Group B: NOV-002, administered intravenously and subcutaneously, in combination with cytotoxic chemotherapy.

- 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 (e.g., complete or partial tumor shrinkage) showed that eleven out of sixteen (69%) NOV-002-treated patients in Group B demonstrated greater than 50% tumor shrinkage versus only five out of fifteen (33%) in the control group (C). Six out of thirteen (46%) patients in Group A demonstrated an objective response. The difference between groups B and C was statistically significant ($p=0.044$).

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

In St. Petersburg, Russia, a multi-center, randomized, open-label study was conducted more than ten years ago to evaluate the safety and efficacy of NOV-002 in patients with advanced non-small cell lung cancer. NOV-002, used in combination with chemotherapy, dramatically and significantly increased the one-year survival rate (63% treated group vs. 17% control, $p<0.05$). NOV-002 significantly improved patients' ability to conduct daily activities and quality of life, increased tolerance to chemotherapy, improved hematologic parameters and improved or normalized kidney/liver toxicity markers. As in the U.S. Phase 1/2 trial, patients receiving NOV-002 were able to receive significantly more cycles of chemotherapy. 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 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 2007 and 15,000 women are expected to die from it. According to a Rodman and Renshaw report dated December 2006, the pharmaceutical market for treating ovarian cancer is 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 (which they previously failed to respond to) in conjunction with NOV-002. The observed 40% objective response rate across these case studies is much higher than would be expected in such patients. 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.

In the U.S., a Phase 2 trial in chemotherapy-resistant ovarian cancer patients commenced in July 2006 and is ongoing at Massachusetts General Hospital and Dana-Farber Cancer Institute. To date, NOV-002 (plus chemotherapy) slowed disease progression in 60% of evaluable patients (6 out of 10 patients). We expect further results from this trial in March or April 2008.

***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 dose-limiting side-effects commenced in June 2007 at the Medical University of South Carolina. Interim results are expected in mid-2008.

Breast cancer remains a serious public health concern throughout the world. According to American Cancer Society, about 180,000 women in the US were expected to be diagnosed with breast cancer in 2007, and approximately 40,000 were expected to die from the disease. Neoadjuvant therapy in early-stage breast cancer patients reduces the size of tumors, allowing for surgical removal with less tissue damage than if no prior chemotherapy was employed. Further, several studies have provided evidence that the development of pathologic complete response (pCR, a total absence of the original tumor as assessed by pathological analysis of surgically removed breast tissue) following neoadjuvant therapy may be associated with a higher probability of long-term survival. However, only approximately 20% of patients treated with current neoadjuvant chemotherapy achieve pCR.

The primary objective of our open-label single-arm trial is to define the rate of pCR in the affected breast after the preoperative administration of NOV-002 in combination with chemotherapy (doxorubicin and cyclophosphamide followed by docetaxel) in patients with stage IIB-IIIC breast cancer. Up to 46 women may be enrolled in the trial, and may receive up to eight cycles of NOV-002 in combination with chemotherapy.

**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, according to a September 2006 publication of *Nature Reviews Drug Discover*y the current global market is believed to be in excess of $3 billion per year, growing to more than $8 billion by 2010. In the U.S., according to the Centers for Disease Control and Prevention, an estimated 3.9 million persons were infected with hepatitis C, and 2.7 million persons in the U.S. had chronic infection in 2003. Further, hepatitis C infections account for approximately 30,000 new infections and 8,000-10,000 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 were treated in previous anecdotal studies. After relatively short treatment periods (1-2 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 1-3 months of post-treatment follow-up. In addition, NOV-205 improved 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, 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 expect to initiate a longer duration proof-of-concept trial in the second half of 2008.

**Non-clinical Research Program**

Our non-clinical research program is aimed at (a) gaining a better understanding of the mechanism(s) of action of our oxidized glutathione-based drug products and (b) adding to the Russian non-clinical data information 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 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 mechanism(s) of action and to facilitate: (1) the design and execution of clinical studies, (2) the interactions with the FDA and (3) the interactions with others in the scientific community. Funded research collaborations are also underway at other academic/scientific institutions including Harvard/Massachusetts General Hospital, the Wistar Institute and the University of Massachusetts Medical Center 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, very 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, very 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 five 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.

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, 2008 we have ten employees, eight of whom are 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 at this time has its own procedures and requirements.

**Item 2. Description of Property**

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. 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.

**Item 3. Legal Proceedings**

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.

**Item 4. Submission of Matters to a Vote of Security Holders**

No matters were submitted to a vote of our security holders during the fourth quarter of the fiscal year ended December 31, 2007.

**PART II**

**Item 5. Market for Common Equity, Related Stockholder Matters and Small Business Issuer Purchases of Equity Securities**

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 2006** | High | Low |
|---|---|---|
| First quarter | $ 2.25 | $ 1.60 |
| Second quarter | 1.95 | 0.85 |
| Third quarter | 1.05 | 0.63 |
| Fourth quarter | 1.02 | 0.60 |

| **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 |

On December 31, 2007 there were 122 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 B preferred stock are outstanding. 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.

**Recent Sales of Unregistered Securities**

On May 2, 2007, we issued 300 shares of our Series B convertible preferred stock and warrants to purchase 7,500,000 shares of our common stock to institutional investors. We received gross proceeds of $15,000,000 and paid approximately $1,300,000 in fees and expenses. We also issued warrants to purchase 900,000 shares of our common stock to Rodman & Renshaw LLC and VFT Special Ventures, Ltd. (an affiliate of Emerging Growth Equities) as partial consideration for their placement agent services in connection with the financing.

On July 6, 2007 we issued 25,000 shares of our common stock to Dr. Kenneth Tew, the chairman of our Scientific Advisory Board, upon exercise of his stock option at a price per share of $0.01 for total consideration of $250, pursuant to an option granted in April 2004.

On January 16, 2008, we issued 100,000 shares of our common stock to Howard Schneider, one of our directors, upon the exercise of his stock option at a price of $0.01 per share for total consideration of $1,000, pursuant to an option granted in February 2005.

These issuances were exempt from registration under the Securities Act of 1933 pursuant to an exemption under Section 4(2) thereof as a sale of securities not involving a public offering.

**Item 6. 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 currently in Phase 3 development for non-small cell lung cancer (NSCLC), acts as a chemoprotectant and an immunomodulator. In May 2006, we finalized a Special Protocol Assessment (SPA) with the FDA for a single pivotal Phase 3 trial in advanced NSCLC 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 on March 13, 2008. NOV-002 is also in Phase 2 development for chemotherapy-resistant ovarian cancer and early-stage breast cancer.

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 second half of 2008.

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 five U.S. issued patents, two European issued patents and one Japanese issued patent.

**Plan of Operation**

Our plan of operation for the next twelve months is to continue the clinical development of our two product candidates. We expect our principal expenditures during those 12 months to include the costs associated with clinical trials. We will continue to maintain a low number of permanent employees and utilize senior advisors, consultants, contract research and manufacturing organizations and third parties to perform certain aspects of product development, including clinical and non-clinical development, manufacturing and, in some cases, regulatory and quality assurance functions. Based on our current and anticipated spending, we anticipate that we will be able to fund these activities with existing working capital into mid-2008. We plan to seek additional capital in the first half of 2008. We also plan to evaluate out-license opportunities for NOV-002 in Europe and/or Japan and use resources from these potential arrangements to offset, in part, the expense of our development. If we are unable to obtain funding on a timely basis, we may be required to significantly curtail or terminate one or more of our research or development programs or take other steps that could significantly impact the execution of our strategy.

**Capital Structure and Financings**

In 2005 following the settlement of certain of our indebtedness, we completed a two-step reverse merger with Common Horizons, Inc. ("Common Horizons"), a Nevada-based developer of web portals, and its wholly-owned subsidiary Nove Acquisition, Inc. After the completion of the reverse merger Novelos became the surviving corporation, the business of Common Horizons, which was insignificant, was abandoned and the business of Novelos was adopted. The transaction was therefore treated as a reverse acquisition recapitalization with Novelos as the acquiring party and Common Horizons as the acquired party for accounting purposes.

During 2005, 2006 and 2007 we completed various private placements of securities. In May through August of 2005 we sold an aggregate of 4,000,000 shares of common stock and warrants to purchase 2,000,000 shares of common stock for net cash proceeds of $3,715,000 and the conversion of $550,000 of convertible debt and accrued interest. In September and October 2005, we sold in a private placement 3,200 shares of Series A preferred stock and warrants to purchase 969,696 shares of common stock for aggregate net proceeds of $2,864,000. On March 7, 2006, we sold 11,154,073 shares of our common stock and warrants to purchase 8,365,542 shares of our common stock for net proceeds of $13,847,000. On May 2, 2007, we sold 300 shares of our Series B preferred stock and warrants to purchase 7,500,000 shares of our common stock for net proceeds of $13,693,000 (net of issuance costs). The shares of Series B Preferred Stock are convertible into 15,000,000 shares of common stock. In connection with that financing, the holders of the existing Series A preferred stock exchanged their 3,264 shares of Series A preferred stock for 272 shares of a new Series C convertible preferred stock, which are convertible into 3,264,000 shares of common stock.

**Results of Operations**

***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, 2007 and 2006***

*Research and Development.* Research and development expense for the year ended December 31, 2007 was $17,428,000 compared to $6,441,000 for the year ended December 31, 2006. The $10,987,000, or 171%, increase in research and development expense was due to increased funding of our clinical, contract manufacturing and non-clinical activities. The overall increase resulted principally from expanded activities relating to our pivotal Phase 3 clinical trial of NOV-002 for non-small cell lung cancer. The increase includes $4,712,000 in additional contract research and consulting services, an increase of $3,310,000 in clinical investigator expenses, an increase of $669,000 in drug manufacturing and distribution costs (including storage and shipping chemotherapy drug) and an increase of $217,000 related to salaries and overhead costs such as travel and related expenses. We also purchased $3,392,000 of chemotherapy drugs during 2007 (an increase of $2,101,000 over 2006) to be used in the Phase 3 clinical trial, specifically for clinical sites in Eastern and Western Europe. Since we do not anticipate recovering any of the costs of the chemotherapy and we not have a reliable method for tracking the drugs that have been administered to patients or evaluating any losses associated with spoilage, we recorded the entire amount as an expense in the period purchased. As disclosed in Note 9, we have a commitment to purchase an additional $1,000,000 of chemotherapy drugs. The commitment was fulfilled during January 2008. The increases discussed above were offset by a decrease of $22,000 in stock compensation expense during 2007 as compared to 2006.

*General and Administrative.* General and administrative expense for the year ended December 31, 2007 was $2,866,000 compared to $2,488,000 for the year ended December 31, 2006. The $378,000, or 15%, increase in general and administrative expense was due to four factors. First, we recorded $396,000 in potential liquidated damages associated with the registration of less than 100% of the securities required by the registration rights agreements with investors in our Series B Preferred Stock. This represents a $421,000 increase over 2006, which included a credit of $25,000 for potential liquidated damages associated with a previous financing. Second, compensation and related costs and fees to directors increased $160,000 as a result of the hiring of a full-time director of finance in mid-2006, salary increases to administrative personnel, and increases in director fees. Third, overhead costs increased $96,000 due principally to increases in insurance and travel costs. Lastly, stock compensation associated with stock options increased by $81,000 due to new option grants during late 2006 and early 2007 to employees, directors and consultants. These increases were offset by a decrease of $380,000 in professional and consulting costs associated with legal, accounting and investor-relations professional services as we increased our use of internal resources to perform those functions. Also, during 2006 we issued restricted stock to certain investor relations firms. There were no restricted stock issuances during 2007.

*Interest Income.* Interest income for the year ended December 31, 2007 was $730,000 compared to $638,000 for the year ended December 31, 2006. The increase in interest income during 2007 related to higher average cash balances in 2007 as a result of the net proceeds received from 2006 and 2007 financing transactions.

*Preferred Stock Dividends and Deemed Dividends.* 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. There were no deemed dividends recorded during 2006; however we paid cash dividends totaling $261,000 to Series A preferred stockholders.

**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, 2007, we had $10,926,000 in cash and equivalents, including $1,185,000 of restricted cash that is reserved for research and development activities.

During the year ended December 31, 2007, cash of approximately $13,468,000 was used in operations, primarily due to a net loss of $19,557,000. The cash impact of the loss was offset by non-cash stock-based compensation expense of $503,000, depreciation and amortization of $15,000, a decrease in prepaid expenses of $162,000, an increase in accrued compensation of $124,000 and an increase in accounts payable and accrued liabilities of $5,285,000. The significant increase in accounts payable and accrued liabilities is principally a result of greater than expected delays in invoicing from clinical research organizations. During the year ended December 31, 2007, cash of approximately $442,000 was provided by investing activities resulting from the release of restrictions on $470,000 of cash that had been previously restricted, offset by payments of $24,000 to purchase fixed assets and $4,000 for a lease deposit.

During the year ended December 31, 2007, cash of approximately $12,830,000 was provided by financing activities as a result of the net proceeds of $13,693,000 from the sale of our Series B preferred stock. This was offset by the payment of cash dividends on the Series A, B and C convertible preferred stock totaling $824,000 and a $40,000 payment made in connection with the exchange of Series A preferred shares for Series C preferred shares.

Based on our current and anticipated spending, we believe that our available cash and equivalents will fund our operations through the middle of 2008. We will need to raise additional capital in order to complete the pivotal Phase 3 clinical trial for NOV-002 in NSCLC and other research and development activities. We plan to seek additional funding through collaborative arrangements and public or private financings. Our ability to continue as a going concern is dependent on our ability to obtain such funding. Additional funding may not be available to us on acceptable terms or at all. In addition, the terms of any financing may adversely affect the holdings or the rights of our stockholders. For example, if we raise additional funds by issuing equity securities, further dilution to our existing stockholders may result. If we are unable to obtain funding on a timely basis, we may be required to significantly curtail one or more of our research or development programs. We also could be required to seek funds through arrangements with collaborators or others that may require us to relinquish rights to some of our technologies, product candidates, or products which we would otherwise pursue on our own.

Even if we are able to raise additional funds in a timely manner, our future capital requirements may vary from what we expect and will depend on many factors, including the following:

- the resources required to successfully complete our clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- continued progress in our research and development programs, as well as the magnitude of these programs;
- the cost of manufacturing activities;
- the costs involved in preparing, filing, prosecuting, maintaining, and enforcing patent claims;
- the timing, receipt, and amount of milestone and other payments, if any, from collaborators; and
- fluctuations in foreign exchange rates.

**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 liabilties. 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.* Commencing on January 1, 2006 we began applying the provisions of Statement of Financial Accounting Standards (SFAS) 123R, *Share-Based Payment*, or SFAS 123R, in accounting for stock-based compensation. 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). Prior to January 1, 2006, we followed Accounting Principles Board (APB) Opinion No. 25, *Accounting for Stock Issued to Employees*, or APB 25, and related interpretations, in accounting for our stock-based compensation plans, rather than the alternative fair-value method provided for under SFAS No. 123, *Accounting for Stock-Based Compensation*, or SFAS 123. 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 123, 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.

**Factors Affecting Future Performance**

**The report from our independent registered public accounting firm indicates that there is substantial doubt about whether we will be able to continue as a going concern for a period of one year from the date of their report.**

The report from our independent registered public accounting firm included with this annual report on Form 10-KSB indicates that factors exist that raise substantial doubt about our ability to continue as a going concern for a period of one year from the date of their report. We have estimated that the cash on hand at December 31, 2007 will fund our obligations through the middle of 2008. Our ability to continue as a going concern is dependent on our ability to obtain capital (through the sale of equity and debt securities and through collaborative arrangements with partners) to fund our development activities. If we are unable to obtain additional capital through these sources, we may have to seek other sources of capital or reevaluate our operating plans, including slowing or stopping the Phase 3 clinical development of our lead drug candidate, NOV-002.

**We may have difficulty raising needed capital because of our limited operating history and our business risks.**

We currently generate no 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 in 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 long-term capital requirements are expected to depend on many factors, including:

- the number of potential products and technologies in development;
- continued progress and cost of our research and development programs;
- progress with pre-clinical studies and clinical trials;
- the time and costs involved in obtaining regulatory clearance;
- costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims;
- costs of developing sales, marketing and distribution channels and our ability to sell our drugs;
- costs involved in establishing manufacturing capabilities for clinical trial and commercial quantities of our drugs;
- competing technological and market developments;
- market acceptance of our products;
- costs for recruiting and retaining management, employees and consultants;
- costs for training physicians;
- our status as a Bulletin-Board listed company and the prospects for our stock to be listed on a national exchange; and
- uncertainty and economic instability resulting from terrorist acts and other acts of violence or war.

We may consume available resources more rapidly than currently anticipated, resulting in the need for additional funding. 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, we believe that we have available cash sufficient to meet our working capital requirements into the middle of 2008, assuming our expense levels do not exceed our current plan. If we do not generate revenues or raise additional capital, we will not be able to sustain our operations at existing levels beyond that date or earlier if expense levels increase.

**The failure to complete development of our therapeutic technology, obtain government approvals, including required U.S. Food and Drug Administration (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 on the patient population and 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 utilizing 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 a 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 additional 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 or the trials are halted by the FDA, we would not be able to achieve any revenue from such product, 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 in the future obtained, 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 are 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, resulting 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 and 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, it will be subject to extensive ongoing regulation. This includes 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 comply with any applicable regulations could further delay or preclude us from developing and commercializing 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 affect our future profitability 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. In fact, NOV-002 has been approved for use in Russia for general medicinal use as an immunostimulant in combination with chemotherapy and antimicrobial therapy, and specifically for indications such as tuberculosis and psoriasis. NOV-205 has been approved in Russia as a monotherapy agent for the treatment of hepatitis B and C. Russian regulatory approval is not equivalent to FDA approval. Pivotal Phase 3 studies with a large number of patients, typically required for FDA approval, were not conducted for NOV-002 and NOV-205 in Russia. Further, 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 the United States.

A U.S.-based Phase 1/2 clinical trial of NOV-002 involving 44 non-small cell lung cancer patients provided what we believe to be a favorable outcome. As a result, we enrolled the first patient in the pivotal Phase 3 trial of NOV-002 for non-small cell lung cancer in November 2006. We reached our enrollment target in March 2008 and we expect trial conclusion mid-2009. We enrolled the first patient in the Phase 2 clinical study for NOV-002 for chemotherapy-resistant ovarian cancer in July 2006 and announced what we believe to be encouraging results from this ongoing study in June 2007. We also commenced a Phase 2 clinical study for NOV-002 for early-stage breast cancer and expect interim results in mid-2008. In December 2007, we concluded a U.S. Phase 1b clinical trial of NOV-205 for chronic hepatitis C non-responders based on favorable safety profile. 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.

**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 increasing operating losses over the next several years as we incur increasing 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 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 to anticipate commercializing and marketing our proposed products in development, and do not expect to generate sufficient revenues from proposed product sales 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. Our inability to have the facilities 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 currently maintain a good working relationship with our contractors. Should the situation change and we are required to relocate these activities on short notice, we do not currently have an alternate facility where 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 gaining FDA approval and commercializing our products.

**We are dependent on our collaborative agreements for the development of our technologies and business development, which expose 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 agreements with universities, hospitals, governmental agencies, charitable foundations, manufacturers and others. The loss of 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 reasonable commercial 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. We cannot assure that such potential claims will not be asserted against us. In addition, the use in our clinical trials of pharmaceutical products that we may develop and then subsequently sell or our potential collaborators may develop and then subsequently sell may cause us to bear a portion of or all product liability risks. A successful liability claim or series of claims brought against us could have a material adverse effect on our business, financial condition and results of operations.

Although we have not received any product liability claims to date, we have an insurance policy of $5,000,000 per occurrence and $5,000,000 in the aggregate to cover such claims should they arise. There can be no assurance that material claims will not arise in the future or 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. Any product liability claim, if successful, could have a material adverse effect on our business, financial condition and results of operations. 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. Claims or losses in excess of any product liability insurance coverage that may be obtained by 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, utilize or recommend any of our products. If we are unable to obtain regulatory approval or commercialize and market our proposed products when 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 future 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 adequately protect or enforce our rights to intellectual property or secure rights to third-party patents, we may lose valuable rights, experience reduced market share, assuming any, or incur costly litigation to protect such 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, including us, that involve licensing agreements, are frequently uncertain and involve complex legal and factual questions. In addition, the coverage claimed in a patent application can be significantly reduced before the patent is issued or in subsequent legal proceedings. Consequently, our patent applications and any issued and licensed patents may not provide protection against competitive technologies or may be held invalid if challenged or circumvented. Our competitors may also independently develop products similar to ours or design around or otherwise circumvent patents issued or licensed to us. In addition, the laws of some foreign countries may not protect our proprietary rights to the same extent as U.S. law.

We also rely on trade secrets, technical know-how and continuing technological innovation to develop and maintain our competitive position. 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.

Although our trade secrets and technical know-how are important, our continued access to the patents is a significant factor in the development and commercialization of our products. Aside from the general body of scientific knowledge from other drug delivery processes and technology, these patents, to the best of our knowledge and based on our current scientific data, are the only intellectual property necessary to develop our products, including NOV-002 and NOV-205. We do not believe that we are or will be violating any patents in developing our 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 and, if our products are approved, we may not be able to manufacture sufficient quantities at an acceptable cost, or may be subject to risk that 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 risk 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. At the appropriate time, we intend to enter into agreements with third parties to sell our products or we may develop our own sales and marketing force. 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 satisfy financial or contractual obligations to us;
- fail to adequately market our products;
- cease operations with little or no notice; or
- offer, design, manufacture or promote competing products.

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 as to 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 have initiated 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 $18 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 such competitors' financial, marketing, manufacturing and other resources.

We are an early-stage enterprise that operates with limited day-to-day business management, operating 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 have an entirely different approach or means of accomplishing similar therapeutic effects from our technology. 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 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 and we may not achieve anticipated revenues.**

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 affect our future revenues and profitability, and the future revenues and profitability of our potential customers, suppliers and collaborative partners and the availability of capital. For example, in certain foreign markets, pricing or profitability of prescription pharmaceuticals is subject to government control. In the United States, given recent federal and state government initiatives directed at lowering the total cost of health care, the U.S. Congress and state legislatures will likely continue to focus on healthcare reform, the cost of prescription pharmaceuticals and the reform 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 (HMO's). 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 HMO's 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 we would need 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 reasonably necessary resources 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. Beginning with this annual report for the fiscal year ending December 31, 2007 we are required to include a report of our management on internal control over financial reporting. Further, 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.

**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 B preferred stock beneficially own, in the aggregate, approximately 32% of our outstanding voting shares. The interests of our current officers, directors and Series B investors may differ from the interests of other stockholders. Further, our current officers, directors and Series B 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, and could reduce the market price of our common stock.

**We are prohibited from taking certain actions and entering into certain transactions as a result of the issuance of our Series B preferred stock.**

For as long as any shares of Series B Preferred Stock remain outstanding we are prohibited from taking certain actions or entering into certain transactions without the prior consent of the holders of outstanding shares of Series B preferred stock. 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 $1.00 or less or with rights senior to the Series B Preferred Stock (except for certain exempted issuances), increasing the number of shares of Series B Preferred Stock or issuing any additional shares of Series B Preferred Stock other than the 400 shares designated in the Series B 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 or intellectual property or entering into a merger or consolidation with another company unless we are the surviving corporation, the Series B Preferred Stock remains outstanding and there are no changes to the rights and preferences of the Series B Preferred Stock, redeeming or repurchasing any capital stock other than Series B Preferred Stock, or incurring any new debt for borrowed money.

If the board of directors determines 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 the holders of the outstanding shares of Series B preferred stock.

**We have failed to register 100% of the securities that were required to be registered in accordance with the Series B Preferred Stock financing agreements.**

In connection with the private placement of Series B Preferred Stock and warrants that closed on May 2, 2007, we entered into a registration rights agreement with the investors that required the Company to file with the SEC no later than June 1, 2007, a registration statement covering the resale of a number of shares of common stock equal to 100% of the shares issuable upon conversion of the preferred stock and exercise of the warrants as of the date of filing of the registration statement (23,400,000 shares). The Registration Statement on Form SB-2 covering the resale of 23,400,000 shares of common stock was filed on May 25, 2007. As a result of comments received from the Securities and Exchange Commission we subsequently amended the registration statement to reduce the size of the offering from 23,400,000 shares to 12,000,000 shares. The holders of Series B Preferred Stock consented to the reduction of shares being covered by the registration statement from 23,400,000 to 12,000,000. Additionally, the investors agreed to extend the date by which the registration statement must be declared effective until September 7, 2007. Furthermore, the holders of Series B Preferred Stock have waived, through September 7, 2007, any liquidated damages arising as a result of the reduction in the number of shares being registered and by any failure to have the registration statement declared effective prior to September 7, 2007. The registration statement, as amended, was declared effective on September 6, 2007.

If the holders of Series B Preferred Stock do not waive liquidated damages for periods subsequent to September 7, 2007, we may become liable for 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 B Preferred Stock until May 2, 2009. In the year ended December 31, 2007, the Company accrued $395,500 for potential liquidated damages, representing an estimate of the pro rata portion due to investors as a result of registering 53%, instead of 100%, of the total shares underlying the preferred stock and warrants held by the investors. As of the date of this filing, no claim has been made for payment of any liquidated damages.

**ITEM 7. FINANCIAL STATEMENTS**

**INDEX TO FINANCIAL STATEMENTS FOR NOVELOS THERAPEUTICS, INC.**

## 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, 2007 and 2006 and the related statements of operations, redeemable preferred stock and stockholders' equity (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.

As discussed in Note 6, effective January 1, 2006, the Company adopted Statement of Financial Accounting Standards (SFAS) No. 123(R), *Share-Based Payment.*

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, 2007 and 2006 and the results of its operations, changes in stockholders' equity (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. Additional funding will be required for the Company to meet its obligations for the following year. 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

Worcester, Massachusetts
March 17, 2008

**NOVELOS THERAPEUTICS, INC.**
**BALANCE SHEETS**

| | December 31, 2007 | December 31, 2006 |
|---|---|---|
| **ASSETS** | | |
| CURRENT ASSETS: | | |
| Cash and equivalents | $ 9,741,518 | $ 9,938,428 |
| Restricted cash | 1,184,702 | 1,655,251 |
| Prepaid expenses and other current assets | 133,281 | 294,995 |
| Total current assets | 11,059,501 | 11,888,674 |
| FIXED ASSETS, NET | 32,809 | 23,810 |
| DEPOSITS | 15,350 | 10,875 |
| TOTAL ASSETS | $ 11,107,660 | $ 11,923,359 |
| **LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIENCY)** | | |
| CURRENT LIABILITIES: | | |
| Accounts payable and accrued liabilities | $ 6,372,478 | $ 1,088,041 |
| Accrued compensation | 349,412 | 225,384 |
| Accrued dividends | 337,500 | — |
| Total current liabilities | 7,059,390 | 1,313,425 |
| COMMITMENTS AND CONTINGENCIES | | |
| REDEEMABLE PREFERRED STOCK: | | |
| Series B convertible preferred stock, $0.00001 par value; 400 shares designated; 300 shares issued and outstanding at December 31, 2007 (liquidation preference $15,337,500) (Note 4) | 9,918,666 | — |
| STOCKHOLDERS' EQUITY (DEFICIENCY): | | |
| Preferred stock, $0.00001 par value; 7,000 shares authorized: Series A 8% cumulative convertible preferred stock; no shares outstanding at December 31, 2007, 3,264 shares issued and outstanding at December 31, 2006; Series C 8% cumulative convertible preferred stock; 272 shares issued and outstanding at December 31, 2007 (liquidation preference $3,264,000), no shares outstanding at December 31, 2006 (Note 4) | — | — |
| Common stock, $0.00001 par value; 150,000,000 shares authorized; 39,260,272 shares issued and outstanding at December 31, 2007; 39,235,272 shares issued and outstanding at December 31, 2006 | 392 | 392 |
| Additional paid-in capital | 37,370,959 | 34,294,154 |
| Accumulated deficit | (43,241,747) | (23,684,612) |
| Total stockholders' equity (deficiency) | (5,870,396) | 10,609,934 |
| TOTAL LIABILITIES, REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIENCY) | $ 11,107,660 | $ 11,923,359 |

*See notes to financial statements.*

**NOVELOS THERAPEUTICS, INC.**
**STATEMENTS OF OPERATIONS**

| | Year Ended December 31, | |
|---|---|---|
| | **2007** | **2006** |
| COSTS AND EXPENSES: | | |
| Research and development | $ 17,427,804 | $ 6,441,394 |
| General and administrative | 2,866,383 | 2,488,414 |
| Total costs and expenses | 20,294,187 | 8,929,808 |
| OTHER INCOME: | | |
| Interest income | 729,922 | 637,752 |
| Miscellaneous | 7,130 | 6,000 |
| Total other income | 737,052 | 643,752 |
| NET LOSS | (19,557,135) | (8,286,056) |
| PREFERRED STOCK DIVIDEND | (1,161,120) | (261,120) |
| PREFERRED STOCK DEEMED DIVIDEND | (9,003,083) | — |
| NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS | $ (29,721,338) | $ (8,547,176) |
| BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | $ (0.76) | $ (0.23) |
| SHARES USED IN COMPUTING BASIC AND DILUTED NET LOSS ATTRIBUTABLE TO COMMON STOCKHOLDERS PER COMMON SHARE | 39,247,532 | 37,179,878 |

*See notes to financial statements.*

**NOVELOS THERAPEUTICS, INC.**
**STATEMENTS OF REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIENCY)**

| | REDEEMABLE PREFERRED STOCK | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Series B Convertible Preferred Stock | | Common Stock | | Series A Cumulative Convertible Preferred Stock | | Series C Cumulative Convertible Preferred | | Additional Paid-in Capital | Accumulated Deficit | Total Stockholders' Equity (Deficiency) |
| | Shares | Amount | Shares | Amount | Shares | Amount | Shares | Amount | | | |
| BALANCE AT JANUARY 1, 2006 | — | $ — | 27,921,199 | $ 279 | 3,264 | $ — | — | $ — | $ 20,119,820 | $ (15,398,556) | $ 4,721,543 |
| Exercise of stock options | — | — | 75,000 | 1 | — | — | — | — | 749 | — | 750 |
| Issuance of common stock for services | — | — | 85,000 | 1 | — | — | — | — | 144,049 | — | 144,050 |
| Issuance of common stock and warrants in private placement, net of issuance costs of $1,211,232 | — | — | 11,154,073 | 111 | — | — | — | — | 13,846,663 | — | 13,846,774 |
| Compensation expense associated with options issued to employees | — | — | — | — | — | — | — | — | 268,281 | — | 268,281 |
| Compensation expense associated with options issued to non-employees | — | — | — | — | — | — | — | — | 175,712 | — | 175,712 |
| Dividends paid on preferred stock | — | — | — | — | — | — | — | — | (261,120) | — | (261,120) |
| Net loss | — | — | — | — | — | — | — | — | — | (8,286,056) | (8,286,056) |
| BALANCE AT DECEMBER 31, 2006 | — | — | 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) |

*See notes to financial statements.*

**NOVELOS THERAPEUTICS, INC.**
**STATEMENTS OF CASH FLOWS**

| | Year Ended December 31, | |
|---|---|---|
| | **2007** | **2006** |
| CASH FLOWS FROM OPERATING ACTIVITIES: | | |
| Net loss | $ (19,557,135) | $ (8,286,056) |
| Adjustments to reconcile net loss to cash used in operating activities: | | |
| Depreciation and amortization | 15,367 | 9,516 |
| Stock-based compensation | 503,290 | 588,043 |
| Change in: | | |
| Prepaid expenses and other current assets | 161,714 | 122,803 |
| Accounts payable and accrued liabilities | 5,284,437 | 870,885 |
| Accrued compensation | 124,028 | 225,384 |
| Cash used in operating activities | (13,468,299) | (6,469,425) |
| CASH FLOWS FROM INVESTING ACTIVITIES: | | |
| Purchases of fixed assets | (24,366) | (10,716) |
| Change in restricted cash | 470,549 | (1,458,343) |
| Deferred financing costs | — | 24,612 |
| Deposits | (4,475) | (1,219) |
| Cash provided by (used in) investing activities | 441,708 | (1,445,666) |
| CASH FLOWS FROM FINANCING ACTIVITIES: | | |
| Proceeds from issuance of common stock, net | — | 13,846,774 |
| Proceeds from issuance of Series B convertible preferred stock, net | 13,693,051 | — |
| Dividends paid to preferred stockholders | (823,620) | (261,120) |
| Payment to preferred stockholders in connection with exchange of shares (1) | (40,000) | — |
| Proceeds from exercise of stock option | 250 | 750 |
| Cash provided by financing activities | 12,829,681 | 13,586,404 |
| INCREASE (DECREASE) IN CASH AND EQUIVALENTS | (196,910) | 5,671,313 |
| CASH AND EQUIVALENTS AT BEGINNING OF YEAR | 9,938,428 | 4,267,115 |
| CASH AND EQUIVALENTS AT END OF YEAR | $ 9,741,518 | $ 9,938,428 |
| SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION | | |
| SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING ACTIVITIES | | |
| Deemed dividends on preferred stock | $ 8,963,083 | $ — |
| Dividends declared but not paid to preferred stockholders | $ 337,500 | $ — |
| Issuance of warrants to Series B preferred stockholders | $ 3,774,385 | $ — |
| Issuance of warrants to placement agents | $ 768,621 | $ — |
| Common stock issued for services | $ — | $ 144,050 |

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

*See notes to financial statements.*

**NOVELOS THERAPEUTICS, INC.**
**NOTES TO FINANCIAL STATEMENTS**

## 1. NATURE OF BUSINESS, ORGANIZATION AND GOING CONCERN

Novelos Therapeutics, Inc. (''Novelos'' or the ''Company'') is a drug development company, originally established in 1996 as AVAM International, focused on the development of therapeutics for the treatment of various cancers and infectious diseases. In 2005, we completed a two-step reverse merger with Common Horizons, Inc., and its wholly-owned subsidiary Nove Acquisition, Inc. Following the merger Novelos was the surviving company. 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 operates in one business segment.

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 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 in the foreseeable future. The Company's ability to continue as a going concern is dependent on its ability to obtain capital to fund these activities through the sale of equity and debt securities and through collaborative arrangements with partners. If the Company is unable to obtain capital through these sources, it may have to seek other sources of capital or reevaluate its operating plans. The accompanying financial statements do not include any adjustments that might be necessary in the event that the Company cannot continue as a going concern for the next year.

## 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 and 2006 includes $1,185,000 and $1,550,000, respectively, of cash pledged as security on a letter of credit agreement with a bank. See Note 9. Restricted cash at December 31, 2006 also includes approximately $105,000 placed in escrow as contractually required under an employment agreement with an officer.

***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***— Effective January 1, 2006, the Company adopted the fair-value recognition provisions of Statement of Financial Accounting Standards (SFAS) No. 123(R), *Share-Based Payment* (SFAS 123R). 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. 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 did not result in a material adjustment to the Company's liability.

***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 $8,850,000 at December 31, 2007. 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, which may exceed federally insured limits. The Company's excess cash is invested on an overnight basis in securities that are fully collateralized. The Company maintains cash and equivalent balances with a stable and well-capitalized financial institution.

***New Accounting Pronouncements*** — 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. The Company is currently evaluating the effect of this consensus on its future reported financial position and results of operations.

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. Earlier adoption is permitted as of the beginning of a fiscal year that begins on or before November 15, 2007, provided that the entity also elects to apply the provisions of SFAS 157. The Company is currently evaluating the effect of this standard on its future reported financial position and results of operations.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* (SFAS 157), to define fair value, establish a framework for measuring fair value in generally accepted accounting principles and expand disclosures about fair-value measurements. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years, with earlier application allowed. The Company is currently evaluating the effect of this standard on its future reported financial position and results of operations.

In February 2006, the FASB issued SFAS No. 155, *Accounting for Certain Hybrid Financial Instruments—an Amendment of FASB Statements No. 133 and 140* (SFAS 155), to simplify and make more consistent the accounting for certain financial instruments. SFAS 155 amends SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, to permit fair-value remeasurement for any hybrid financial instrument with an embedded derivative that otherwise would require bifurcation, provided that the whole instrument is accounted for on a fair-value basis. SFAS 155 amends SFAS No. 140, *Accounting for the Impairment or Disposal of Long-Lived Assets*, to allow a qualifying special-purpose entity to hold a derivative financial instrument that pertains to a beneficial interest other than another derivative financial instrument. SFAS 155 applies to all financial instruments acquired or issued after the beginning of an entity's first fiscal year that begins after September 15, 2006, with earlier application allowed. This standard had no effect on the Company's reported financial position or results of operations in the year ended December 31, 2007.

Effective January 1, 2006, the Company adopted the provisions of SFAS No. 154, *Reporting Accounting Changes in Interim Financial Statements* (''SFAS 154''), which replaces APB Opinion No. 20, *Accounting Changes,* and SFAS No. 3, *Reporting Accounting Changes in Interim Financial Statement.* SFAS 154 changed the requirements for the accounting for and reporting of a change in accounting principle. SFAS 154 applies to all voluntary changes in accounting principle. It also applies to changes required by an accounting pronouncement in the unusual instance that the pronouncement does not include specific transition provisions. When a pronouncement includes specific transition provisions, those provisions should be followed. The adoption of SFAS 154 had no impact on the Company's financial position or results of operations.

**3. FIXED ASSETS**

Fixed assets consisted of the following at December 31:

| | 2007 | 2006 |
|---|---|---|
| Office and computer equipment | $ 51,652 | $ 52,537 |
| Computer software | 7,896 | 7,896 |
| Leasehold improvements | 4,095 | 2,500 |
| Total fixed assets | 63,643 | 62,933 |
| Less accumulated depreciation and amortization | (30,834) | (39,123) |
| Fixed assets, net | $ 32,809 | $ 23,810 |

Included in fixed assets is equipment under capital lease with a cost of $13,061. The equipment was fully depreciated in all periods presented.

**4. STOCKHOLDERS' EQUITY (DEFICIENCY)**

***2005 PIPE***- From May 27, 2005 through August 9, 2005, the Company completed a private offering of securities structured as a "PIPE" (Private Investment in Public Equity), 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 was subsequently increased to 3,139,312 and the exercise price of the warrants was reduced to $1.65 per share as a result of the Series A Preferred financing described below. The 2006 PIPE transaction in March 2006 described below resulted in a further adjustment to the warrants, increasing the number of warrants to 3,836,967 and reducing the exercise price of the warrants to $1.35 per share. The sale of Series B Preferred Stock described below resulted in a further adjustment to the warrants, increasing the number of warrants to 5,180,000 and reducing the exercise price of the warrants to $1.00 per share.

***Series A Preferred*** - 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") and 969,696 common stock warrants for net proceeds of $2,864,000, net of issuance costs of $336,000. The preferred shares were originally convertible at a price of $1.65 per common share into 1,939,393 shares of common stock and the warrants were exercisable at $2.00 per share. The Series A Preferred Stock and warrants had anti-dilution provisions that provided for adjustments to the conversion or exercise price, as applicable, upon the occurrence of certain events. Pursuant to these anti-dilution provisions, both the conversion price of the preferred stock and the exercise price of the warrants were subsequently adjusted to $1.35 per share on March 7, 2006 in connection with a subsequent offering of common stock described below (2006 PIPE) and the preferred stock then outstanding became convertible into 2,417,774 shares of common stock. Pursuant to the anti-dilution provisions contained in the warrants, the exercise price of the warrants was reduced to $1.00 in connection with the sale of the Series B Preferred Stock described below. On May 2, 2007, the holders of Series A Preferred Stock exchanged all of their shares of Series A Preferred Stock for shares of Series C Preferred Stock (see "Series C Preferred" below).

During 2007, the Company paid cash dividends of $87,765 ($26.88 per preferred share) to Series A preferred stockholders through the date of the exchange of shares described below. During 2006, the Company paid cash dividends of $261,120 to Series A preferred shareholders ($80.00 per preferred share).

***2006 PIPE*** — On March 7, 2006, the Company completed a private offering of securities structured as a PIPE, 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. The fair value of the warrants issued to investors and placement agents was included as a component of permanent equity upon issuance. Pursuant to anti-dilution provisions, the number of warrants issued to investors and placement agents and finders was subsequently increased to 10,270,018 and the exercise price of the warrants was reduced to $2.20 per share as a result of the sale of Series B Preferred Stock described below.

**Registration Rights, 2005 and 2006 Financings -** The shares of common stock sold in the 2005 PIPE and the 2006 PIPE and the shares of common stock issuable upon conversion of the Series C Preferred Stock and exercise of certain outstanding warrants have been registered for resale with the Securities and Exchange Commission. Pursuant to the registration rights associated with the financings, if the Company fails to maintain the effectiveness of the registration statements for the periods specified in the agreements, the Company may become obligated to pay liquidated damages to the selling stockholders. The Company believes that an investor claim for liquidated damages relating to these registration rights is not probable and therefore has not accrued for such a contingency at December 31, 2007.

***Series B Preferred*** - 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 to purchase 7,500,000 shares of common stock for an aggregate purchase price of $15,000,000.

*Rights and Preferences*

The shares of Series B Preferred Stock issued to investors are convertible into shares of common stock at $1.00 per share at any time after issuance at the option of the holder. If there is an effective registration statement covering the shares of common stock underlying the Series B Preferred Stock and the volume-weighted average price ("VWAP"), as defined in the Series B Certificate of Designations, of the Company's common stock exceeds $2.00 for 20 consecutive trading days, then the outstanding Series B Preferred Stock will automatically convert into common stock at the conversion price then in effect. The conversion price is subject to adjustment only for stock dividends, stock splits or similar capital reorganizations. The Series B Preferred Stock has an annual dividend rate of 9%, payable semi-annually on September 30 and March 31. Such dividends may be paid in cash or in registered shares of the Company's common stock at the Company's option. 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. The Series B 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 B 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 the Company's affairs, assets available to pay the holders of Series B Preferred Stock are not sufficient to permit the payment in full, then all assets will be distributed to the holders of Series B 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 the Company is not the surviving corporation or, if the Company 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 B Preferred Stock) acquires more than 50% of the Company's outstanding stock, then the holders of Series B 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.

For as long as any shares of Series B Preferred Stock remain outstanding, 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 $1.00 or less or with rights senior to the Series B Preferred Stock (except for certain exempted issuances), (iv) increasing the number of shares of Series B Preferred Stock or issuing any additional shares of Series B Preferred Stock other than the 400 shares designated in the Series B 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 B Preferred Stock remains outstanding and there are no changes to the rights and preferences of the Series B Preferred Stock, (vi) redeeming or repurchasing any capital stock other than Series B Preferred Stock, (vii) incurring any new debt for borrowed money and (viii) changing the number of the Company's directors. The Company is required to reserve, out of authorized shares of common stock, 125% of the number of shares of common stock into which Series B Preferred Stock is convertible.

*Board and Observer Rights*

The holders of Series B Preferred Stock 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 B Preferred Stock is entitled is equal to the number of shares of common stock that would be issued to such holder if the Series B Preferred Stock had been converted at the record date for the meeting of stockholders.

Pursuant to the Purchase Agreement, from and after the closing of the sale of the Series B Preferred Stock, Xmark Opportunity Fund, Ltd. and its affiliates (the "Xmark Entities"), will have 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 B 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") will 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 Lead Investors no longer hold at least one-third of the Series B Preferred Stock issued to them. To date, a board member and board observer have not been designated. Pursuant to the agreement by holders of Series A Preferred to exchange their shares for shares of Series C Preferred Stock, as described above, the holders of the new Series C preferred stock gave up the right to nominate one person to the Company's Board of Directors, which right they previously held as holders of Series A preferred stock.

*Common Stock Purchase Warrants*

The common stock purchase warrants issued to investors are exercisable for an aggregate of 7,500,000 shares of the Company's common stock at an exercise price of $1.25 per share and expire in May 2012. If after the first anniversary of the date of issuance of the warrant 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. 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 $2.25 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.

*Registration Rights Agreement*

The Company and the investors entered into a registration rights agreement which required the Company to file with the SEC no later than June 1, 2007, a registration statement covering the resale of a number of shares of common stock equal to 100% of the shares issuable upon conversion of the preferred stock and exercise of the warrants as of the date of filing of the registration statement. The registration rights agreement also required the registration statement to be declared effective by August 30, 2007 and requires the Company to use its best efforts to keep the registration statement 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 registration statement was not declared effective within the timeframe specified by the Registration Rights Agreement or not maintained effective, the Company is required to pay to the investors liquidated damages equal to 1.5% per month (prorated on a daily basis for any period of less than a full month) of the aggregate purchase price of the preferred stock and warrants until the registration statement is declared effective. 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 without incurring liability for the liquidated damages in certain circumstances.

The Company filed a registration statement covering 100% of the shares of common stock issuable on conversion of the preferred stock and exercise of the warrants (23,400,000 shares, including 900,000 shares underlying the common stock purchase warrants issued to placement agents) on May 25, 2007. The registration statement was thereafter amended to reduce the number of shares of common stock that may be resold under the registration statement to 80% of the shares issuable upon conversion of the preferred stock and none of the shares of common stock issuable upon exercise of the warrants. The holders of the Series B Preferred Stock consented to the filing of the amendment to the registration statement by which the number of shares of common stock covered by the registration statement was reduced from 23,400,000 shares to 12,000,000 shares. The holders of the Series B Preferred Stock also waived any liquidated damages arising under the registration rights agreement through September 7, 2007, as a result of such reduction in the number of shares registered, and by any failure to have the registration statement declared effective by the SEC prior to September 7, 2007. The registration statement, as amended, was declared effective on September 6, 2007.

After September 7, 2007 the Company may be required to pay to the investors any liquidated damages due as a result of the failure to (i) register 100% of the shares of common stock issuable upon conversion of the preferred stock and exercise of the warrants and (ii) keep the registration statement continuously effective. In the year ended December 31, 2007, the Company accrued $395,500 for potential liquidated damages. This amount is included in general and administrative expenses and represents an estimate of the probable pro rata portion due to investors as a result of registering 53%, instead of 100%, of the total shares underlying the preferred stock and warrants held by the investors. As of the date of this filing, no claim has been made for payment of any liquidated damages.

*Placement Agent Agreement*

Upon the closing of the preferred stock and warrant financing the Company paid a cash placement agent fee to Rodman & Renshaw LLC ("Rodman") and Rodman's subagent totaling $1,050,000 and issued Rodman and the subagent warrants to purchase a total of 900,000 shares of common stock with the same terms as the warrants issued to the investors.

The Company has agreed to indemnify Rodman from claims arising in relation to the services it provided to the Company in connection with this agreement.

*Accounting Treatment*

The terms of the Series B Preferred Stock contain 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 as of December 31, 2007. 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. The Company has concluded that since it is not probable that an event will occur that would allow the holders 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 $15,337,500 at December 31, 2007.

Since the conversion price of the preferred stock was less than the market value of the Company's common stock at the time of the closing, the Company determined that there was a beneficial conversion feature ("BCF"). After allocating the relative fair value of the warrants issued to investors of $3,774,385 to paid-in-capital, the intrinsic value of the BCF was determined to be $7,824,385. Since the Series B Preferred Stock was immediately convertible, the BCF was recorded as a deemed dividend in the quarter ended June 30, 2007. The fair value of the warrants issued to placement agents at the date of issuance, calculated using the Black-Scholes valuation method, was $768,821 and was recorded as a component of permanent equity with an offsetting reduction in permanent equity to record the issuance cost. The valuation was based on estimated volatility of 80%, a discount rate of 4.55%, and a term of 5 years.

***Series C Preferred*** - 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. Pursuant to that agreement, the holders of the Series A Preferred Stock exchanged their 3,264 shares of Series A Preferred Stock for 272 shares of a new Series C convertible preferred stock ("Series C Preferred Stock"), which are subordinated to the Series B Preferred Stock as set forth in the Series C Certificate of Designations. The Series C Preferred Stock is 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 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.

The Series C Preferred stockholders do not have voting rights. The Series C Preferred Stock has an annual dividend rate of 8% until October 1, 2008 and thereafter has an annual dividend rate of 20%. The dividend rate also increases to 20% upon certain events of default as defined in the Series C Certificate of Designations. The dividends are payable quarterly commencing on June 30, 2007. Such dividends shall be paid only after all outstanding dividends on the Series B Preferred Stock (with respect to the current fiscal year and all prior fiscal years) shall have been paid to the holders of the Series B Preferred Stock. During 2007, the Company declared and paid dividends totaling $173,355 ($637 per share) to Series C preferred stockholders. The conversion price is subject to adjustment for stock dividends, stock splits or similar capital reorganizations. The Series C Preferred Stock 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 B 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 B preferred stock as may be required) on a pro rata basis.

**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, 2007:

| Offering | Outstanding (as adjusted) | Exercise Price (as adjusted) | Expiration Date |
|---|---|---|---|
| 2005 Bridge Loans | 720,000 | $ 0.625 | April 1, 2010 |
| 2005 PIPE: | | | |
| Investors | 4,500,000 | $ 1.00 | August 9, 2008 |
| Placement agents and finders | 680,000 | $ 1.00 | August 9, 2010 |
| Series A Preferred (1): | | | |
| Investors – September 30, 2005 closing | 909,090 | $ 1.00 | September 30, 2010 |
| Investors – October 3, 2005 closing | 60,606 | $ 1.00 | October 3, 2010 |
| 2006 PIPE: | | | |
| Investors | 9,509,275 | $ 2.20 | March 7, 2011 |
| Placement agents | 760,743 | $ 2.20 | March 7, 2011 |
| Series B Preferred: | | | |
| Investors | 7,500,000 | $ 1.25 | May 2, 2012 |
| Placement agents | 900,000 | $ 1.25 | May 2, 2012 |
| Series C Exchange | 1,333,333 | $ 1.25 | May 2, 2012 |
| | | | |
| Total | 26,873,047 | | |

(1) Concurrently with the Series B Financing, the shares of Series A Preferred Stock were exchanged for shares of Series C Preferred Stock.

On April 1, 2005, in connection with the issuance of $450,000 bridge notes payable, the Company issued warrants to purchase 720,000 shares of Novelos stock at $0.625 per share that are exercisable through April 1, 2010.

No warrants have been exercised as of December 31, 2007.

**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, | |
|---|---|---|
| | 2007 | 2006 |
| 2000 Stock Option Plan | 73,873 | 73,873 |
| 2006 Stock Incentive Plan | 2,220,000 | 5,000,000 |
| Options issued outside of formalized plans | 2,553,778 | 2,578,778 |
| Warrants | 28,973,047(1) | 16,820,135 |
| Preferred stock | 22,014,000(1) | 2,696,283 |
| | | |
| Total shares reserved for future issuance | 55,834,698 | 27,169,069 |

(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** — On July 16, 2007, the Company's shareholders approved and the Company filed an amendment to the articles of incorporation to increase the authorized shares of common stock from 100,000,000 to 150,000,000.

**5. 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 will receive an upfront license fee of $500,000 in 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. Additionally 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 spending certain minimum amounts on development in the first 4 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 is longer.

**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, exercised or canceled under the 2000 Plan during 2005, 2006 or 2007.

*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, 2007 and 2006, stock options for the purchase of 1,380,000 and 840,000 shares of common stock, respectively, were granted under the 2006 Plan. There have been no exercises or cancellations of options 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 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.

*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, 2007 and 2006, options to purchase 25,000 and 75,000 shares, respectively, were exercised.

**Adoption of SFAS No. 123(R)**

The Company accounts for employee stock-based compensation in accordance with SFAS 123R, using the modified-prospective-transition method. 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.

Under the modified-prospective-transition method, compensation cost recognized for the years ended December 31, 2007 and 2006 includes: (a) compensation cost for all stock-based payments granted, but not yet vested as of January 1, 2006, based on the grant-date fair value estimated in accordance with the original provisions of SFAS 123, and (b) compensation cost for all stock-based payments granted subsequent to January 1, 2006, based on the grant-date fair value estimated in accordance with the provisions of SFAS 123R.

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, | |
|---|---|---|
| | **2007** | **2006** |
| Employee and director stock option grants: | | |
| Research and development | $ 163,558 | $ 77,333 |
| General and administrative | 179,675 | 190,948 |
| | 343,233 | 268,281 |
| Non-employee consultants stock option grants and restricted stock awards: | | |
| Research and development | 17,233 | 11,435 |
| General and administrative | 142,824 | 308,327 |
| | 160,057 | 319,762 |
| | | |
| Total stock-based compensation | $ 503,290 | $ 588,043 |

**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, 2007 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 quarterly 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, | |
|---|---|---|
| | **2007** | **2006** |
| Volatility | 80% | 80% |
| Weighted-average volatility | 80% | 80% |
| Risk-free interest rate | 3.57%-4.66% | 4.50%-5.05% |
| Expected life (years) | 5 | 5 |
| Dividend | 0 | 0 |
| Weighted-average exercise price | $ 0.57 | $ 0.99 |
| Weighted-average grant-date fair value | $ 0.38 | $ 0.62 |

**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, 2006 | 2,727,651 | $ 0.60 | 8.9 | $ 4,294,257 |
| Options granted | 840,000 | $ 0.99 | | |
| Options exercised | (75,000) | $ 0.01 | | |
| Outstanding at December 31, 2006 | 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 |
| Exercisable at December 31, 2007 | 3,125,978 | $ 0.68 | 7.3 | $ 1,177,066 |

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, 2007 and 2006, the total intrinsic value of options exercised was $18,750 and $134,250, respectively and the total amount of cash received from exercise of these options was $250 and $750, respectively.

As of December 31, 2007 there was approximately $643,000 of total unrecognized compensation cost related to unvested share-based compensation arrangements. Of this total amount, 51%, 35% and 14% is expected to be recognized during 2008, 2009 and 2010, respectively. The Company expects 1,721,673 in unvested options to vest in the future. 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 weighted average grant date fair value of vested and unvested options outstanding at December 31, 2006 was $0.23 and $0.79, respectively. The fair value of options that vested during the years ended December 31, 2007 and 2006 was approximately $701,267 and $415,000, respectively.

On January 2, 2008, options to purchase 40,000 shares of our common stock were granted to each of our six non-employee directors and options to purchase a total of 95,000 shares of our common stock were granted to consultants. The director and consultant grants were at the closing price of our common stock on that day. These options vest on a quarterly basis over a two-year period. On January 16, 2008, an option to purchase 100,000 shares was exercised by one of our directors for total consideration of $1,000.

## 7. INCOME TAXES

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

| | 2007 | 2006 |
|---|---|---|
| Net operating loss carryforwards | $ 4,547,000 | $ 3,700,000 |
| Research and development expenses | 9,718,000 | 3,581,000 |
| Tax credits | 1,880,000 | 550,000 |
| Capital loss carryforward | 403,000 | 403,000 |
| Stock-based compensation | 375,000 | |
| Gross deferred tax asset | 16,923,000 | 8,234,000 |
| Valuation allowance | (16,923,000) | (8,234,000) |
| Net deferred tax asset | $ — | $ — |

As of December 31, 2007, the Company had federal and state net operating loss carryforwards of approximately $13,198,000 and $7,031,000 respectively, which expire through 2027. In addition, the Company has federal and state research and development and investment tax credits of approximately $1,292,000 and $892,000, respectively which expire through 2027. 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 2007 and 2006, 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 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 year ended December 31, 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, 2004.

## 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, | |
|---|---|---|
| | 2007 | 2006 |
| Stock options | 4,847,651 | 3,492,651 |
| Warrants | 26,873,047 | 14,561,449 |
| Conversion of preferred stock | 18,264,000 | 2,417,774 |

**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 $81,450 and $62,625 the years ended December 31, 2007 and 2006, respectively. Future minimum lease payments under this non-cancelable lease are $92,100 in 2008 and $61,400 in 2009.

The Company is obligated to 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.

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. One of the Company's directors is president of Oxford Group, Ltd. 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.

In July, 2006, the Company entered into a contract with a supplier of pharmaceutical products that will provide chemotherapy drugs to be used in connection with Phase 3 clinical trial activities outside of the United States. Pursuant to the contract, the Company was obligated to purchase a minimum of approximately $2,600,000 of chemotherapy drugs at specified intervals through March 2008. In October 2007, the Company amended the contract to increase its remaining purchase commitment from $135,000 to approximately $2,000,000 through January 2008. As of December 31, 2007, approximately $1,000,000 is remaining under that commitment. In connection with that agreement, the Company was required to enter into a standby letter of credit arrangement with a bank, originally expiring in August 2007 and renewed through March 2008. The balance on the standby letter of credit at December 31, 2007 equals the remaining purchase commitment of $1,000,000. In connection with the letter of credit, the Company has pledged cash of approximately $1,185,000 to the bank as collateral on the letter of credit. The pledged cash is reflected as restricted cash on the balance sheet.

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 one-year terms unless 60-day notice is provided by either party. The agreement has been renewed for an additional one year term 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 following twelve months.

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 one-year terms unless 90-day notice is provided by either party. The agreement has been renewed for an additional one-year term 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.

**ITEM 8. CHANGES AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

**ITEM 8a. CONTROLS AND PROCEDURES**

*Management's report on internal control over financial reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) of the Exchange Act. Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on criteria established in the *Internal Control--Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management's evaluation included such elements as the design and operating effectiveness of key financial reporting controls, process documentation, accounting policies, and our overall control environment. Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2007. This annual report does not include an attestation report of the Company's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit the Company to provide only management's report in this annual report.

*Evaluation of disclosure controls and procedures*. Based on our management's evaluation (with the participation of our principal executive officer and principal financial officer), as of the end of the period covered by this report, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act")) are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms.

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

*Changes in internal control over financial reporting*. Our management, in connection with its evaluation of internal controls (with the participation of our principal executive officer and principal financial officer), did not identify any change in internal control over the financial reporting process that occurred during our fourth fiscal quarter of 2007 that would have materially affected, or would have been reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 8B. OTHER INFORMATION**

None.

## Part III

### ITEM 9. DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS.

Our current directors and executive officers are:

| Name | Age | Position |
|---|---|---|
| Stephen A. Hill, B.M. B.Ch., M.A., F.R.C.S. | 49 | Chairman of the Board |
| Harry S. Palmin | 38 | President, Chief Executive Officer, Director |
| M. Taylor Burtis | 56 | Vice President of Regulatory, Quality and Compliance |
| Christopher J. Pazoles, Ph.D. | 57 | Vice President of Research and Development |
| Joanne M. Protano | 39 | Vice President, Chief Financial Officer and Treasurer |
| Kristin C. Schuhwerk | 37 | Vice President of Clinical Development and Operations |
| Michael J. Doyle (1) (2) (3) | 49 | Director |
| Sim Fass, Ph.D. (1) (2) (3) | 66 | Director |
| James S. Manuso, Ph.D. | 59 | Director |
| David B. McWilliams (2) (3) | 64 | Director |
| Simyon Palmin | 63 | Director |
| Howard M. Schneider (1) (3) | 63 | 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. Simyon Palmin is the father of Harry Palmin.

**Stephen A. Hill, B.M. B.Ch., M.A., F.R.C.S.** Dr. Hill was elected our chairman of the board of directors in September 2007. Dr. Hill has served as ArQule's President and Chief Executive Officer since April 1999, a position from which he has resigned effective March 31, 2008. As of April 1, 2008, Dr. Hill will join Solvay Pharmaceuticals, Inc. as its President and Chief Executive Officer. Before joining 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.

**M. Taylor Burtis**. Ms. Burtis has served as our vice president of regulatory, quality and compliance since July 2005. From October 2004 to June 2005, she served as a senior director of regulatory affairs at Therion Biologics. From November 2003 to September 2004, she served as a senior director of regulatory affairs at Antigenics. From May 2000 to October 2003, Ms. Burtis served as an associate director for worldwide regulatory affairs at Wyeth BioPharma. From 1996 to April 2000, she served as a senior manager of regulatory affairs at Genentech. From 1992 to 1996, Ms. Burtis was an FDA consumer safety officer in the Office of Compliance at the Center for Biologics Evaluation and Research. From 1991 to 1992, Ms. Burtis served as a medical research manager at Boston Veterans Administration Center. From 1987 to 1991, she served as a research lab manager at Children's Hospital, from 1985 to 1987, she served as a laboratory director at Brigham & Women's Hospital and from 1980 to 1985, she served as a technical specialist international liaison with the American Red Cross. Ms. Burtis earned a B.S. in biology from Framingham State College and a M.B.A. in operations and strategy from Simmons College.

**Christopher J. Pazoles, Ph.D**. 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, where she practiced as a certified public accountant 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**, **Ph.D**. 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, Ph.D**. 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). Previously, he served on the boards of Inflazyme Pharmaceuticals, Inc., Symbiontics, Inc., Quark Biotech, Inc., Galenica Pharmaceuticals, Inc., and Supratek Pharma, Inc. 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. Since August 2004, Mr. McWilliams has 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 Fairway Medical Technologies, Houston Technology Center and Texas Healthcare and Bioscience Institute. 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.

**Simyon Palmin**. Mr. Palmin founded us in 1996. He served as our chairman of the board from 1996 until September 2007 and currently serves as a director and our director of Russian relations. From 1996 to February 2004, he served as our chief executive officer. From 1984 to 1998, Mr. Palmin served as vice president of strategic planning and vice president of new product development of Design Components Inc. Mr. Palmin received a B.S. in naval instrumentation from St. Petersburg Navy Institute, St. Petersburg, Russia and a M.A. in aviation instrumentation from the Institute of Aviation Instrumentation, St. Petersburg, Russia. He also completed studies for a Ph.D. in electrical engineering.

**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.

**Code of Ethics**

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

**ITEM 10. EXECUTIVE COMPENSATION**

**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, 2007 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 ($) | Bonus ($) (4) | Option Awards ($) (5) | All other compensation ($) | Total ($) |
|---|---|---|---|---|---|---|
| Harry S. Palmin (1) | 2007 | $ 245,000 | $ 37,500 | $ 59,660 | $ 0 | $ 342,160 |
| President, Chief Executive Officer | 2006 | 225,000 | 50,000 | 91,410 | 0 | 366,410 |
| Christopher J. Pazoles (2) | 2007 | $ 216,720 | $ 30,000 | $ 37,288 | $ 0 | $ 284,008 |
| Vice President of Research and Development | 2006 | 199,200 | 40,320 | 60,940 | 0 | 300,460 |
| M. Taylor Burtis (3) | 2007 | $ 203,175 | $ 20,000 | $ 29,830 | $ 0 | $ 253,005 |
| Vice President of Quality, Regulatory and Compliance | 2006 | 186,750 | 37,800 | 60,940 | 0 | 285,490 |

(1) On December 17, 2007, the board of directors approved an increase in Mr. H. Palmin's annual base salary to $270,000, effective January 1, 2008.

(2) On December 17, 2007, the board of directors approved an increase in Dr. Pazoles' annual base salary to $223.000, effective January 1, 2008.

(3) On December 17, 2007, the board of directors approved an increase in Ms. Burtis' annual base salary to $218,000, effective January 1, 2008.

(4) Bonus amounts shown in this column relate to services performed in the year shown, but were paid in the subsequent year. The bonus amount shown for 2007 represents 50% of the award approved by the compensation committee. The remaining 50% is payable upon the completion of an equity financing during 2008.

(5) 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 one-year terms unless 90-day notice is provided by either party. The agreement has been renewed for an additional one-year term 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; (ii) continue to provide him benefits for 11 months after the date of termination; and (iii) 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 one-year terms unless 60-day notice is provided by either party. The agreement has been renewed for an additional one year term 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, 2007 by the executive officers named in the summary compensation table.

**Outstanding Equity Awards at Fiscal Year-End**

| | | 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 | 2007(1) | — | 200,000 | $ 0.45 | 12/17/2017 |
| | 2006(1) | 50,000 | 100,000 | 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 | 2007(1) | — | 125,000 | $ 0.45 | 12/17/2017 |
| | 2006(1) | 33,333 | 66,667 | 0.91 | 12/11/2016 |
| | 2005(5) | 200,000 | — | 0.01 | 4/8/2015 |
| | 2004(6) | 16,667 | — | 0.01 | 4/1/2014 |
| M. Taylor Burtis | 2007(1) | — | 100,000 | $ 0.45 | 12/17/2017 |
| | 2006(1) | 33,333 | 66,667 | 0.91 | 12/11/2016 |
| | 2005(7) | 150,000 | — | 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 vest 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 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, 2007.

| Name and Principal Position | Year | Director Fees ($) (2) | Option Awards ($) (3) | All other compensation ($) | Total ($) |
|---|---|---|---|---|---|
| Stephen A. Hill, Chairman | 2007 | $ 10,542 | $ 70,020 | $ — | $ 80,562 |
| Michael J. Doyle, Director | 2007 | 31,500 | 17,919 | — | 49,419 |
| Sim Fass, Director | 2007 | 30,750 | 17,919 | — | 48,669 |
| James S. Manuso, Director | 2007 | 8,250 | 37,510 | | 45,760 |
| David B. McWilliams, Director | 2007 | 25,000 | 17,919 | — | 42,919 |
| Simyon Palmin, Director and director of Russian relations (1) | 2007 | — | — | 81,880 | 81,880 |
| Howard M. Schneider, Director | 2007 | 38,000 | 17,919 | — | 55,919 |

(1) Other compensation for Simyon Palmin represents salary and bonus he received in his capacity as director of Russian relations for the Company.

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

(3) 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 2007, we paid our non-employee directors a cash fee of $4,000 per quarter. The non-employee directors also received a fee of $1,500 for any board or committee meeting attended or $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 (prorated for the portion of the year during which he served as chairman), 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 will not receive separate fees for their services as directors.

During 2007, each non-employee director received an annual stock option grant of 30,000 shares of our common stock at the closing price of our common stock on the first trading day of the fiscal year. These options vest on a quarterly basis over a two-year period.

Effective January 1, 2008, the quarterly cash fee payable to non-employee directors was increased to $5,000. Payment of the $1,000 increase over the 2007 fees will be deferred until the closing of an equity financing.

On January 2, 2008, options to purchase 40,000 shares of our common stock were granted for 2008 to each of our non-employee directors at the closing price of our common stock on that day. These options vest on a quarterly basis over a two-year period.

**Equity compensation plans**

The following table provides information as of December 31, 2007 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 | 2,293,873 | $ 0.81 | 2,780,000 |
| Equity compensation plans not approved by stockholders | 2,553,778 | $ 0.55 | 0 |
| Total | 4,847,651 | $ 0.67 | 2,780,000 |

**ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

At the close of business on March 14, 2008, there were issued and outstanding 39,360,272 shares of our common stock. The following table provides information regarding beneficial ownership of our common stock as of March 14, 2008:

- 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 March 14, 2008.

| Name and Address of Beneficial Owner | Shares Beneficially Owned (3) | | | |
|---|---|---|---|---|
| | Outstanding | Right to Acquire | Total | Percentage |
| Harry S. Palmin (1) | 582,118 | 787,130 | 1,369,248 | 3.4% |
| M. Taylor Burtis | 0 | 183,333 | 183,333 | * |
| Christopher J. Pazoles | 0 | 250,000 | 250,000 | * |
| Stephen A. Hill | 0 | 61,250 | 61,250 | * |
| Michael J. Doyle | 0 | 140,625 | 140,625 | * |

| Name and Address of Beneficial Owner | Shares Beneficially Owned (3) | | | |
|---|---|---|---|---|
| | Outstanding | Right to Acquire | Total | Percentage |
| Sim Fass | 0 | 140,625 | 140,625 | * |
| James S. Manuso | 0 | 30,000 | 30,000 | * |
| David McWilliams | 0 | 193,403 | 193,403 | * |
| Simyon Palmin (2) | 1,947,481 | 487,826 | 2,435,307 | 6.1% |
| Howard Schneider | 100,000 | 40,625 | 140,625 | * |
| All directors and officers as a group (12 persons) | 2,629,599 | 2,473,150 | 5,102,749 | 12.2% |

* Less than one percent.

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

(2) Shares owned by S. Palmin include 236,542 shares owned by his wife, Alla Palmin.

(3) The terms of the Series B Preferred Stock and common stock purchase warrants provide that the number of shares of common stock to be obtained by each of the holders of Series B Preferred Stock and common stock purchase warrants, upon conversion of the Series B 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 B Preferred Stock who might otherwise have the right to acquire 5% or more of our common stock have been omitted from this table. Similar 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.

**ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

As a result of the assignment to Novelos of the exclusive worldwide intellectual property and marketing rights of oxidized glutathione (excluding Russia and the states of the former Soviet Union), Novelos is required to pay Oxford Group, Ltd., a company that provides consulting and financial services, a royalty in the amount of 0.8% of our net sales of oxidized glutathione-based products. One of our directors is president of Oxford Group, Ltd.

We are obligated to ZAO BAM, the Russian company that invented NOV-002 and NOV-205, under a royalty and technology transfer agreement. One of our former directors, Mark Balazovsky, is the majority shareholder of ZAO BAM. Mr. Balazovsky resigned from our board of directors in November 2006. Pursuant to the royalty and technology transfer agreement between us 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 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.

**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. Messrs. Harry and Simyon Palmin are not independent directors.

**ITEM 13. EXHIBITS**

| Exhibit No. | Description | Filed with this Form 10-KSB | Incorporated by Reference | | |
|---|---|---|---|---|---|
| | | | Form | Filing Date | Exhibit No. |
| 2.1 | Agreement and plan of merger among Common Horizons, Inc., Nove Acquisition, Inc. and Novelos Therapeutics, Inc. dated May 26, 2005 | | 8-K | June 2, 2005 | 99.2 |
| 2.2 | Agreement and plan of merger between Common Horizons and Novelos Therapeutics, Inc. dated June 7, 2005 | | 10-QSB | August 15, 2005 | 2.2 |
| 3.1 | Amended and Restated Certificate of Incorporation filed as Exhibit A to the Certificate of Merger merging Nove Acquisition, Inc. with and into Novelos Therapeutics, Inc. dated May 26, 2005 | | 10-QSB | August 10, 2007 | 3.1 |
| 3.2 | Certificate of Merger merging Common Horizons, Inc. with and into Novelos Therapeutics, Inc. dated June 13, 2005 | | 10-QSB | August 10, 2007 | 3.2 |
| 3.3 | Certificate of Correction dated March 3, 2006 | | 10-QSB | August 10, 2007 | 3.3 |
| 3.4 | Certificate of Amendment to Amended and Restated Certificate of Incorporation dated July 16, 2007 | | 10-QSB | August 10, 2007 | 3.4 |
| 3.5 | Certificate of Designations of Series B convertible preferred stock | | 10-QSB | August 10, 2007 | 3.5 |
| 3.6 | Certificate of Designations of Series C cumulative convertible preferred stock | | 10-QSB | August 10, 2007 | 3.6 |
| 3.7 | By-laws | | 8-K | June 17, 2005 | 2 |
| 10.1 ** | Employment agreement with Christopher J. Pazoles dated July 15, 2005 | | 10-QSB | August 15, 2005 | 10.4 |
| 10.2 ** | Employment Agreement with Harry S. Palmin dated January 31, 2006 | | 8-K | February 6, 2006 | 99.1 |
| 10.3 ** | Compensation for independent directors | | 8-K | December 22, 2006 | 99.1 |
| 10.4** | 2000 Stock Option and Incentive Plan | | SB-2 | November 16, 2005 | 10.2 |
| 10.5 ** | Form of 2004 non-plan non-qualified stock option | | SB-2 | November 16, 2005 | 10.3 |
| 10.6 ** | Form of non-plan non-qualified stock option used from February to May 2005 | | SB-2 | November 16, 2005 | 10.4 |

| | | | | |
|---|---|---|---|---|
| 10.7 ** | Form of non-plan non-qualified stock option used after May 2005 | SB-2 | November 16, 2005 | 10.5 |
| 10.8 | Form of common stock purchase warrant issued in March 2005 | SB-2 | November 16, 2005 | 10.6 |
| 10.9 | Form of securities purchase agreement dated May 2005 | 8-K | June 2, 2005 | 99.1 |
| 10.10 | Form of subscription agreement dated September 30, 2005 | 8-K | October 3, 2005 | 99.1 |
| 10.11 | Form of Class A common stock purchase warrant dated September 30, 2005 | 8-K | October 3, 2005 | 99.3 |

| Exhibit No. | Description | Filed with this Form 10-KSB | Incorporated by Reference | | |
|---|---|---|---|---|---|
| | | | Form | Filing Date | Exhibit No. |
| 10.12 | Form of share escrow agreement | | 8-K | November 3, 2005 | 10.3 |
| 10.13 | Consideration and new technology agreement dated April 1, 2005 with ZAO BAM | | 10-QSB | August 15, 2005 | 10.2 |
| 10.14 | Letter agreement dated March 31, 2005 with The Oxford Group, Ltd. | | 10-QSB | August 15, 2005 | 10.3 |
| 10.15 | Form of securities purchase agreement dated March 2, 2006 | | 8-K | March 3, 2006 | 99.2 |
| 10.16 | Form of common stock purchase warrant dated March 2006 | | 8-K | March 3, 2006 | 99.3 |
| 10.17 | Placement Agent Agreement with Oppenheimer & Co. Inc. dated December 19, 2005 | | 8-K | March 3, 2006 | 99.4 |
| 10.18** | 2006 Stock Incentive Plan | | 10-QSB | November 6, 2006 | 10.1 |
| 10.19 | Form of Incentive Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.1 |
| 10.20 | Form of Non-Statutory Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.2 |
| 10.21 | Form of Non-Statutory Director Stock Option under Novelos Therapeutics, Inc.'s 2006 Stock Incentive Plan | | 8-K | December 15, 2006 | 10.3 |
| 10.22 | Securities Purchase Agreement dated April 12, 2007 | | 10-QSB | May 8, 2007 | 10.1 |
| 10.23 | Letter Amendment dated May 2, 2007 to the Securities Purchase Agreement | | 10-QSB | May 8, 2007 | 10.2 |
| 10.24 | Registration Rights Agreement dated May 2, 2007 | | 10-QSB | May 8, 2007 | 10.3 |
| 10.25 | Placement Agent Agreement with Rodman & Renshaw, LLC dated February 12, 2007 | | 10-QSB | May 8, 2007 | 10.4 |
| 10.26 | Agreement to Exchange and Consent dated May 1, 2007 | | 10-QSB | May 8, 2007 | 10.5 |
| 10.27 | Form of Common Stock Purchase Warrant dated May 2, 2007 issued pursuant to the Securities Purchase Agreement dated April 12, 2007 | | 10-QSB | May 8, 2007 | 4.1 |
| 10.28 | Form of Common Stock Purchase Warrant dated May 2, 2007 issued pursuant to the Agreement to Exchange and Consent dated May 2, 2007 | | 10-QSB | May 8, 2007 | 4.2 |

| Exhibit No. | Description | Filed with this Form 10-KSB | Incorporated by Reference | | |
|---|---|---|---|---|---|
| | | | Form | Filing Date | Exhibit No. |
| 31.1 | Certification of chief executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | X | | | |
| 31.2 | Certification of chief financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | X | | | |
| 32.1 | Certification of chief executive officer and chief financial officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | X | | | |

** Management contract or compensatory plan.

**ITEM 13. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

Aggregate fees for professional services by Stowe & Degon for the years ended December 31, 2007 and December 31, 2006 were:

| | 2007 | 2006 |
|---|---|---|
| Audit | $ 81,500 | $ 79,500 |
| Audit Related | 14,125 | — |
| Tax | — | — |
| All Other | — | — |
| Total | $ 95,625 | $ 79,500 |

*Audit Fees:* Audit fees were for professional services rendered for the audit of our annual financial statements, the review of quarterly financial statements and the preparation of statutory and regulatory filings.

*Audit-Related Fees:* Audit-related fees were for professional services rendered in connection with consents and assistance with review of registration statements filed with the SEC.

*Tax Fees:* Tax fees consist of fees billed for professional services for tax compliance, tax planning and tax advice. These services include assistance regarding federal, state and international tax compliance and planning, tax audit defense, and mergers and acquisitions. No such services were provided by Stowe & Degon.

*All Other Fees:* All other fees include assistance with miscellaneous reporting requirements and interpretation of technical issues. No such services were provided by Stowe & Degon.

***Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm***

At present, our audit committee approves each engagement for audit and non-audit services before we engage Stowe & Degon to provide those services.

Our audit committee has not established any pre-approval policies or procedures that would allow our management to engage Stowe & Degon to provide any specified services with only an obligation to notify the audit committee of the engagement for those services. None of the services provided by Stowe & Degon for 2007 or 2006 were obtained in reliance on the waiver of the pre-approval requirement afforded in SEC regulations.

**SIGNATURES**

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NOVELOS THERAPEUTICS, INC.

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

Date: March 24, 2008

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Harry S. Palmin
Harry S. Palmin
Title: Chief Executive Officer and Director (Principal Executive Officer)

Date: March 24, 2008

By: /s/ Joanne M. Protano
Joanne M. Protano
Title: Chief Financial Officer (Principal Accounting Officer)

Date: March 24, 2008

By: /s/ Stephen A. Hill
Stephen A. Hill
Title: Chairman of the Board of Directors

Date: March 24, 2008

By: /s/ Michael J. Doyle
Michael J. Doyle
Title: Director

Date: March 24, 2008

By: /s/ Sim Fass
Sim Fass
Title: Director

Date: March 24, 2008

By: /s/ James S. Manuso

James S. Manuso
Title: Director

Date: March 24, 2008

By: /s/ David B. McWilliams

David B. McWilliams
Title: Director

Date: March 24, 2008

By: /s/ Simyon Palmin

Simyon Palmin
Title: Director

Date: March 24, 2008

By: /s/ Howard M. Schneider

Howard M. Schneider
Title: Director

Date: March 24, 2008

**EXHIBIT 31.1**

**CERTIFICATION PURSUANT TO**
**SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Harry S. Palmin, Chief Executive Officer and President, Novelos Therapeutics, Inc., certify that:

1. I have reviewed this Annual Report on Form 10-KSB of Novelos Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the small business issuer as of, and for, the periods presented in this report;

4. The small business issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 (e) and 15d-15(e)) for the small business issuer and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the small business issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) evaluated the effectiveness of the small business issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   c) disclosed in this report any change in the small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting.

5. The small business issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of small business issuer's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the small business issuer's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the small business issuer's internal control over financial reporting.

/s/ HARRY S. PALMIN
Harry S. Palmin
Principal Executive Officer

Date: March 24, 2008

**EXHIBIT 31.2**

**CERTIFICATION PURSUANT TO**
**SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Joanne M. Protano, Chief Financial Officer, Novelos Therapeutics, Inc., certify that:

1. I have reviewed this Annual Report on Form 10-KSB of Novelos Therapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the small business issuer as of, and for, the periods presented in this report;

4. The small business issuer's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15 (e) and 15d-15(e)) for the small business issuer and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the small business issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) evaluated the effectiveness of the small business issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   c) disclosed in this report any change in the small business issuer's internal control over financial reporting that occurred during the small business issuer's most recent fiscal quarter (the small business issuer's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the small business issuer's internal control over financial reporting.

5. The small business issuer's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the small business issuer's auditors and the audit committee of small business issuer's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the small business issuer's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the small business issuer's internal control over financial reporting.

/s/ JOANNE M. PROTANO

Date: March 24, 2008

Joanne M. Protano
Principal Financial Officer

**Exhibit 32.1**

**CERTIFICATION PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-KSB of Novelos Therapeutics, Inc. (the "Company") for the year ended December 31, 2007, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Harry S. Palmin, Chief Executive Officer and President of the Company, and I, Joanne M. Protano, Chief Financial Officer of the Company, certify, to the best of our knowledge and belief, pursuant to 18 U.S.C.§ 1350, adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that:

1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

| /s/ HARRY S. PALMIN | /s/ JOANNE M. PROTANO |
|---|---|
| Harry S. Palmin | Joanne M. Protano |
| Principal Executive Officer | Principal Financial Officer |

Dated: March 24, 2008

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Novelos Therapeutics, Inc. and will be retained by Novelos Therapeutics, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.