Table of Contents

As filed with the Securities and Exchange Commission on April 28, 2011

Registration No. 333-150898

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Post-Effective Amendment No. 4
on
FORM S-1
to
FORM S-3
REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

PRO-PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Nevada	2834	04-3562325
(State or other jurisdiction of incorporation or organization)	(Primary SIC Number)	(I.R.S. Employer Identification No.)

7 Wells Avenue
Newton, Massachusetts 02459
(617) 559-0033
(Address, including zip code, and telephone number, including area code, of principal executive offices)

Peter G. Traber, M.D.
Chief Executive Officer and President
Pro-Pharmaceuticals, Inc.
7 Wells Avenue
Newton, Massachusetts 02459
(617) 559-0033
(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:

Jonathan C. Guest
McCarter & English, LLP
265 Franklin Street
Boston, Massachusetts 02110
Tel. (617) 449-6500
Fax (617) 449-9200

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

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

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

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

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

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

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

Pursuant to Rule 401(b) under the Securities Act of 1933, and in order to comply with Section 10(a)(3) of the Securities Act, the Registrant is filing this Post-Effective Amendment on Form S-1 because it is currently ineligible to file a registration statement on Form S-3. Pursuant to Rule 429 under the Securities Act, the prospectus contained in this Post-Effective Amendment on Form S-1 shall serve as a combined prospectus that also relates to, and this Post-Effective Amendment on Form S-1 shall act, upon effectiveness, as a post-effective amendment to, the Registrant’s previous Registration Statement on Form S-3, Registration No. 333-148911.

Table of Contents

EXPLANATORY NOTE

The prospectus contained in this registration statement serves as a combined prospectus relating to two previously filed registration statements. Alternate versions of certain pages of the prospectus relating to registration statement No. 333-150898 appear following page F-43, and serve as replacement pages to form the prospectus relating to registration statement No. 333-148911 as follows: page A-1 replaces the prospectus cover page; page A-2 replaces page 3; and page A-3 replaces pages 11-15.

Table of Contents

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

Subject To Completion, Dated April 28, 2011

PROSPECTUS

PROLOR PHARMACEUTICALS, INC.
The LEADER in GALECTIN THERAPEUTICS®

4,797,500 Shares of Common Stock

This prospectus covers the offer and sale of up to 4,797,500 shares of our common stock from time to time by certain selling stockholders named in this prospectus. The shares of common stock being offered are issuable upon the exercise of outstanding warrants or the conversion of outstanding shares of Series A 12% Convertible Preferred Stock.

We are not offering any shares of common stock.

The selling stockholders will receive all of the net proceeds from sales of the common stock covered by this prospectus and will pay all underwriting discounts and selling commissions, if any, applicable to those sales. We will not receive any proceeds from sales of any of these shares. However, we will receive the exercise price of the warrants to the extent they are not exercised on a net or cashless exercise basis.

The selling stockholders may periodically sell the shares directly or through agents, underwriters or dealers. The shares may be sold:

- in the over-the-counter market, in privately negotiated transactions or otherwise;
- directly to purchasers or through agents, brokers, dealers or underwriters; and
- at market prices prevailing at the time of sale, at prices related to the prevailing market prices, or at negotiated prices.

If required, each time a selling stockholder sells shares of common stock, we will provide a prospectus supplement that will contain specific information about the terms of that transaction. We urge you to carefully read this prospectus and any accompanying prospectus supplement before you make an investment decision.

Investing in our securities involves a high degree of risk. You should purchase these securities only if you can afford a complete loss of your investment. See "Risk Factors" beginning on page 4 of this prospectus.

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

The date of this prospectus is [ ], 2011

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS

Unless the context otherwise requires, all references to “Pro-Pharmaceuticals,” “we,” “us,” “our,” “our company,” or “the Company” in this prospectus refer to Pro-Pharmaceuticals, Inc., a Nevada corporation, and its subsidiaries, and their respective predecessor entities for the applicable periods, considered as a single enterprise.

You should rely only on the information contained in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. For further information, please see the section of this prospectus entitled “Where You Can Find More Information.” The selling stockholders are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

You should not assume that the information appearing in this prospectus is accurate as of any date other than the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

PROSPECTUS SUMMARY

This summary highlights important features of this offering and the information included in this prospectus. This summary does not contain all of the information that you should consider before investing in our securities. You should read this prospectus carefully as it contains important information you should consider when making your investment decision. See "Risk Factors" beginning on page 4.

About Pro-Pharmaceuticals, Inc.

We are a development-stage company engaged in the discovery and development of therapeutics that target Galectin receptors that we believe enhance existing cancer treatments and could also be used in the treatment of tissue fibrosis, particularly liver fibrosis, inflammatory diseases, and enhancement of tumor vaccines. All of our products are presently in development, including pre-clinical and clinical trials.

Since our inception on July 10, 2000, our primary focus has been the development of a new generation of anti-cancer treatments using polysaccharide polymers that are aimed at increasing survival and improving the quality of life for cancer patients. Our lead product candidate, DAVANAT®, is a patented new chemical entity that we believe, when administered in combination with chemotherapy, biologics and vaccines, increases efficacy while reducing adverse side effects of the chemotherapy. The Company holds composition of matter and method of use patents on DAVANAT®, which were invented by the founders, without any license or royalty encumbrances.

In 2002, the Food and Drug Administration ("FDA") granted us an Investigational New Drug application ("IND"), for use of DAVANAT® in combination with 5-fluorouracil ("5-FU"), to treat late-stage cancer patients with solid tumors. 5-FU is one of the most widely used chemotherapies for treatment of various types of cancer, including colorectal, breast, head and neck, and other gastrointestinal cancers. In September 2008, we submitted a clinical and pre-clinical package to the FDA in support of our DAVANAT® New Drug Application ("NDA"). Following a meeting in December 2008, the FDA advised us that we would be required to conduct a Phase III trial to demonstrate superiority to the best standard of care for late stage colorectal cancer patients.

On December 17, 2010, we met with the FDA to present our Phase III clinical development program for DAVANAT®. Agreement was reached on the design of pivotal, randomized, controlled, and blinded Phase III clinical trials of DAVANAT® co-administered with standard chemotherapy for second line treatment of patients with metastatic colorectal cancer.

On March 9th, 2011 we announced that our Board of Directors named Peter G. Traber, M.D., President and Chief Executive Officer, effective March 17, 2011. Dr. Traber was named Interim Chief Medical Officer in June 2010 and appointed to the Board of Directors in February 2009. Dr. Traber succeeds Theodore D. Zucconi, Ph.D., who continues as a member of the Board of Directors. Dr. Zucconi also will direct Company operations with a focus on approvals and expansion of the Latin American business and manufacturing.

We were incorporated under Nevada law on January 26, 2001 and in May of that year acquired a Massachusetts corporation (organized on July 10, 2000) engaged in the business we now undertake. We have a wholly-owned Delaware subsidiary that we formed in 2003 to hold our cash and cash equivalents. We also have a wholly-owned Nevada subsidiary that we formed in August 2010 for the development of our technology in cardiovascular treatments.

Principal Executive Offices

Our principal executive offices are located at 7 Wells Avenue, Newton, Massachusetts 02459. Our telephone number is (617) 559-0033, fax number is (617) 928-3450 and our website address is www.pro-pharmaceuticals.com. The information on our website is not incorporated by reference into this prospectus and should not be relied upon with respect to this offering.

The Offering

Securities Offered	4,797,500 shares of our common stock offered by selling stockholders
Use of Proceeds	We will not receive any proceeds from the sale of shares by the selling stockholders. To the extent that the warrants are exercised by the selling stockholders for cash, rather than by cashless exercise, we will receive proceeds constituting the exercise price of such warrants. Any such proceeds received by us through warrant exercises will be used for working capital.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain, in addition to historical information, forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. These statements relate to future events or our future financial performance and can be identified by the use of forward-looking terminology such as "may," "could," "expect," "anticipate," "estimate," "continue" or other similar words. These forward-looking statements are based on management's current expectations and are subject to a number of factors and uncertainties which could cause actual results to differ materially from those described in these statements. We caution investors that actual results or business conditions may differ materially from those projected or suggested in forward-looking statements as a result of various factors including, but not limited to, those described in, or incorporated by reference into, the Risk Factors section of this prospectus. We cannot assure you that we have identified all the factors that create uncertainties. Readers should not place undue reliance on forward-looking statements. We undertake no obligation to publicly release the result of any revision of these forward-looking statements to reflect events or circumstances after the date they are made or to reflect the occurrence of unanticipated events.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below and the other information before deciding to invest in our common stock. The risks described below are not the only ones facing our company. Additional risks not presently known to us or that we currently consider immaterial may also adversely affect our business. We have attempted to identify below the major factors that could cause differences between actual and planned or expected results, but we cannot assure you that we have identified all of those factors.

If any of the following risks actually happen, our business, financial condition and operating results could be materially adversely affected. In this case, the trading price of our common stock could decline, and you could lose all or part of your investment.

Risks Related to Our Company

We have incurred net losses to date and must raise additional capital by the end of the second quarter of 2012 in order to continue to operate.

We have incurred net losses in each year of operation since our inception in July 2000. Our accumulated deficit as of December 31, 2010 was $56.4 million and our cumulative net loss applicable to common stockholders as of December 31, 2010 was $56.7 million. Based on $5.9 million of unrestricted cash as of December 31, 2010 and $2.6 million received subsequent to year end through March 15, 2011, we believe that we have sufficient cash to meet our financial and operating obligations through 2012. We will require more cash to fund our operations and believe that we will be able to obtain additional financing. However, there can be no assurance that we will be successful in obtaining such new financing or, if available, that such financing will be obtainable on terms favorable to us. We have taken steps to reduce our administrative and clinical spending; however, we must raise additional cash by the end of the fourth quarter of 2012, or we may not be able to continue operations and may be forced to seek bankruptcy protection.

We may raise capital through public or private equity financings, partnerships, debt financings, bank borrowings, or other sources. Additional funding may not be available on favorable terms or at all. If adequate funds are not otherwise available, we may need to significantly curtail operations. To obtain additional funding, we may need to enter into arrangements that require us to relinquish rights to certain technologies, products and/or potential markets. To the extent that additional capital is raised through the sale of equity, or securities convertible into equity, our equity holders may experience dilution of their proportionate ownership of the company.

We are a development stage company and have not yet generated any revenue.

We are a development stage company and have not generated any revenues to date. We granted PROCAPS, S.A. exclusive rights to market and sell DAVANAT® to treat cancer patients in Colombia, South America, which we refer to as the PROCAPS Channel. In addition, there is no assurance that we will obtain FDA approval of DAVANAT® or any other of our products in development and, even if we do so, that we will generate revenue sufficient to become profitable. Our failure to generate revenue and profit would likely lead to loss of your investment.

We have one drug candidate in clinical trials and results are uncertain.

DAVANAT®, our lead product candidate, is in human clinical trials. Clinical trials are expensive, time-consuming and may not be successful. They involve the testing of potential therapeutic agents, or effective treatments, in humans, typically in three phases, to determine the safety and efficacy of the product candidates necessary for an approved drug. Many products in human clinical trials fail to demonstrate the desired safety and efficacy characteristics. Even though DAVANAT® progressed successfully through Phase I and Phase II human trials, it may fail in Phase III trials or in later stages of development. We will engage others to conduct our clinical trials, including clinical research organizations and, possibly, government-sponsored agencies. These trials may not start or be completed as we forecast, or may not achieve desired results.

We may be unable to commercialize our product candidates.

Even if DAVANAT® and other anticipated product candidates achieve positive results in clinical trials, we may be unable to commercialize them. Although we anticipate receipt of regulatory approvals in connection with the PROCAPS Channel, there is no assurance that such approvals will be obtained. Our general inability to commercialize our products would substantially impair the viability of the Company.

Performance milestones may not occur as contemplated by the agreement with PROCAPS S.A.

As our arrangement with PROCAPS is a collaboration, and because collaborations take place over time, milestone and performance risks are inherent and so performance milestones may not occur as contemplated by our agreement.

There are risks associated with our reliance on third parties to design trial protocols, arrange for and monitor the clinical trials, and collect and analyze data.

As we develop products eligible for clinical trials, including DAVANAT®, we will contract with independent parties to assist us in the design of the trial protocols, arrange for and monitor the clinical trials, collect data and analyze data. In addition, certain clinical trials for our products may be conducted by government-sponsored agencies and will be dependent on governmental participation and funding. Our dependence on independent parties and clinical sites involves risks including reduced control over the timing and other aspects of our clinical trials.

There are risks associated with our reliance on third parties for manufacturing, marketing, sales, managed care and distribution infrastructure and channels.

We do not have, and do not now intend to develop, facilities for the manufacture of any of our products for clinical or commercial production. At this time, we are not a party to any long-term agreement with any of our suppliers, and accordingly, we have our products manufactured on a purchase-order basis from one of two primary suppliers. We are developing relationships with manufacturers and will enter into collaborative arrangements with licensees or have others manufacture our products on a contract basis. We expect to depend on such collaborators to supply us with products manufactured in compliance with standards imposed by the FDA and foreign regulators.

We have limited experience in marketing, sales or distribution, and we do not intend to develop a sales and marketing infrastructure to commercialize our pharmaceutical products. If we develop commercial products, we will need to rely on licensees, collaborators, joint venture partners or independent distributors to market and sell those products. Thus, we expect that we will be required to enter into agreements with commercial partners to engage in sales, marketing and distribution efforts around our products in development. 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 sales and marketing of our proposed products, we will need to develop our own sales and marketing capabilities.

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 to us; or
- offer, design, manufacture or promote competing formulations or products.

If we fail to develop sales, managed care, marketing and distribution channels, we would experience delays in generating sales and incur increased costs, which would harm our financial results.

Our lack of operating experience may cause us difficulty in managing our growth.

We have limited experience in manufacturing or procuring products in commercial quantities, conducting other later-stage phases of the regulatory approval process, selling pharmaceutical products, or negotiating, establishing and maintaining strategic relationships. Although we have engaged a number of consultants to assist us, any additional growth may require us to expand our management, operational and financial systems and controls. If we are unable to do so, our business and financial condition would be materially harmed. If rapid growth occurs, it may strain our managerial, operational and financial resources.

We are exposed to product liability, pre-clinical and clinical liability risks which could place a financial burden upon us, should we be sued, because we do not currently have product liability insurance above and beyond our general insurance coverage.

Our business exposes us to potential product liability and other liability risks that are inherent in the testing, manufacturing and marketing of pharmaceutical formulations and products. Claims may be asserted against us. In addition, the use in our clinical trials of pharmaceutical formulations and products that our potential collaborators may develop and the subsequent sale of these formulations or products by us or our potential collaborators 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.

Because we do not currently have any FDA-approved products or formulations, we do not currently have any product liability insurance covering commercialized products. We may not be able to obtain or maintain adequate product liability insurance on acceptable terms, if at all, or such insurance may not provide adequate coverage against our potential liabilities. 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 sufficient liquidity 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.

If users of our proposed products are unable to obtain adequate reimbursement from third-party payers, market acceptance of our proposed products may be limited and we may not achieve revenues.

The continuing efforts of governments, 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. In other words, our ability to commercialize our proposed products will depend in large part on the extent to which appropriate reimbursement levels for the cost of our proposed formulations, products and related treatments are obtained by the health care providers of these products and treatments. At this time we cannot predict the precise impact of the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Affordability Act of 2010, the comprehensive health care reform legislation passed by Congress in March 2010. It is possible that the adoption of this legislation could harm our business, financial condition and results of operations.

We depend on key individuals to develop our products and pursue collaborations.

We are highly dependent on Anatole Klyosov, Ph.D., D.Sc. and Peter G. Traber, M.D. Dr. Klyosov is our Chief Scientist and has scientific technical or other business expertise and experience that is critical to our success. Dr. Traber is our Chief Medical Officer who, among other things, leads our FDA Phase III colorectal cancer trial for DAVANAT® as well as our overall FDA approval process. Effective March 17, 2011 Dr. Traber will become our Chief Executive Officer as well as our Chief Medical Officer. The loss of Dr. Klyosov or Dr. Traber, or failure to attract or retain other key personnel, could prevent us from pursuing collaborations or developing our products and core technologies.

We are involved in litigation with Summer Street Research Partners.

On January 30, 2008, Custom Equity Research, Incorporated (d/b/a Summer Street Research Partners), or Summer Street, filed a lawsuit against us, alleging claims for breach of contract, declaratory judgment and unjust enrichment arising out of an engagement letter under which Summer Street agreed to provide institutional investment placement services. Discovery is currently underway. A trial date has been set for November 8, 2011. We believe the lawsuit is without merit and intends to contest it vigorously.

We received a letter dated January 12, 2011 from Maxim Group, or Maxim, which has acted as our placement agent. The letter advises that Maxim has been named as a respondent in a FINRA arbitration matter commenced by Summer Street arising out of the Company's termination of its relationship with Summer Street and its engagement of Maxim as its placement agent. Our placement agent agreement with Maxim contains an indemnification provision that requires us to indemnify Maxim in connection with FINRA arbitration. We believe the claims asserted by Summer Street in the arbitration are without merit.

Risks Related to the Drug Development Industry

We will need regulatory approvals to commercialize our products.

We are required to obtain approval (i) from the FDA in order to sell our products in the U.S. and (ii) from foreign regulatory authorities in order to sell our products in other countries. The FDA's review and approval process is lengthy, expensive and uncertain. Extensive pre-clinical and clinical data and supporting information must be submitted to the FDA for each indication for each product candidate in order to secure FDA approval. Before receiving FDA clearance to market our proposed products, we will have to demonstrate that our products are safe on the patient population and effective 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, manufacture, labeling, advertising, distribution and promotion of drugs and medical devices. As a result, regulatory approvals can take a number of years or

longer to accomplish and require the expenditure of substantial financial, managerial and other resources. The FDA could reject an application or require us to conduct additional clinical or other studies as part of the regulatory review process. Delays in obtaining or failure to obtain FDA approvals would delay or prevent the commercialization of our product candidates, which would prevent, defer or decrease our receipt of revenues. In addition, if we receive initial regulatory approval, our product candidates will be subject to extensive and rigorous ongoing domestic and foreign government regulation.

Data obtained from clinical trials are 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 do not necessarily predict the results that will be obtained from later pre-clinical studies and clinical trials. Moreover, pre-clinical and clinical data is susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials, even after promising results in earlier trials. The failure to adequately demonstrate the safety and effectiveness of a proposed formulation or product under development could delay or prevent regulatory clearance of the potential drug. The resulting delays to commercialization 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 thus our proposed drugs may not be approved for marketing.

Our competitive position depends on protection of our intellectual property.

Development and protection of our intellectual property are critical to our business. All of our intellectual property, patented or otherwise, has been invented and/or developed by employees of the Company. If we do not adequately protect our intellectual property, competitors may be able to practice our technologies. Our success depends in part on our ability to obtain patent protection for our products or processes in the U.S. and other countries, protect trade secrets, and prevent others from infringing on our proprietary rights.

Since patent applications in the U.S. are maintained in secrecy for at least portions of their pendency periods (published on U.S. patent issuance or, if earlier, 18 months from earliest filing date for most applications) and since other publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we are the first to make the inventions to be covered by our patent applications. The patent position of biopharmaceutical firms generally is highly uncertain and involves complex legal and factual questions. The U.S. Patent and Trademark Office has not established a consistent policy regarding the breadth of claims that it will allow in biotechnology patents.

Some or all of our patent applications may not issue as patents, or the claims of any issued patents may not afford meaningful protection for our technologies or products. In addition, patents issued to us or our licensors may be challenged and subsequently narrowed, invalidated or circumvented. Patent litigation is widespread in the biotechnology industry and could harm our business. Litigation might be necessary to protect our patent position or to determine the scope and validity of third-party proprietary rights, and we may not have the required resources to pursue such litigation or to protect our patent rights.

Although we require our scientific and technical employees and consultants to enter into broad assignment of inventions agreements, and all of our employees, consultants and corporate partners with access to proprietary information to enter into confidentiality agreements, these agreements may not be honored.

Products we develop could be subject to infringement claims asserted by others.

We cannot assure that products based on our patents or intellectual property will not be challenged by a third party claiming infringement of its proprietary rights. If we were not able to successfully defend our patents or other intellectual property, we may have to pay substantial damages, possibly including treble damages, for past infringement.

We face intense competition in the biotechnology and pharmaceutical industries.

The biotechnology and pharmaceutical industries are intensely competitive. We face direct competition from U.S. and foreign companies focusing on pharmaceutical products, which are rapidly evolving. Our competitors include major multinational pharmaceutical and chemical companies, specialized biotechnology firms and universities and other research institutions. Many of these competitors have greater financial and other resources, larger research and development staffs and more effective marketing and manufacturing organizations, than we do. In addition, academic and government institutions are increasingly likely to enter into exclusive licensing agreements with commercial enterprises, including our competitors, to market commercial products based on technology developed at such institutions. Our competitors may succeed in developing or licensing technologies and products that are more effective, or succeed in obtaining FDA or other regulatory approvals for product candidates before we do. Acquisitions of, or investments in, competing pharmaceutical or biotechnology companies by large corporations could increase such competitors' financial, marketing, manufacturing and other resources.

The market for our proposed products is rapidly changing and competitive, and new drugs and new treatments which 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 proposed 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.

As a pre-revenue company engaged in the development of drug technologies, our resources are limited and we may experience technical challenges inherent in such 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 compared to our proposed products. Our competitors may develop drugs that are safer, more effective or less costly than our proposed 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 proposed products, even if commercialized. Many of our targeted diseases and conditions can also be treated by other medication. 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, formulations and products to receive widespread acceptance if commercialized.

Risks Related to Our Common Stock

Stock prices for pharmaceutical and biotechnology companies are volatile.

The market price for securities of pharmaceutical and biotechnology companies historically has been highly volatile, and the market from time to time has experienced significant price and volume fluctuations that are unrelated to the operating performance of such companies. Fluctuations in the trading price or liquidity of our common stock may adversely affect, among other things, the interest in our stock by purchasers on the open market and, generally, our ability to raise capital.

Our Board of Directors has the power to designate, without shareholder approval, a series of preferred stock the shares of which could be senior to the common stock and be entitled to conversion or voting rights that adversely affect the holders of our common stock.

Our Articles of Incorporation authorizes issuance of capital stock including 20,000,000 undesignated shares, and empowers our Board of Directors to prescribe by resolution and without shareholder approval a class or series of undesignated shares, including the number of shares in the class or series and the voting powers,

designations, rights, preferences, restrictions and the relative rights in each such class or series. Accordingly, we may authorize the issuance of additional shares or series of preferred stock that would rank senior to the shares of common stock as to dividend rights or rights upon our liquidation, winding-up, or dissolution.

We could issue additional common stock, which might dilute the book value of our common stock.

Our Board of Directors has authority, without action or vote of our shareholders, to issue all or a part of our authorized but unissued shares. Such stock issuances could be made at a price that reflects a discount or a premium from the then-current trading price of our common stock. In addition, in order to raise capital, we may need to issue securities that are convertible into or exchangeable for a significant amount of our common stock. These issuances would dilute the percentage ownership interest, which would have the effect of reducing your influence on matters on which our shareholders vote, and might dilute the book value of our common stock. You may incur additional dilution if holders of stock options, whether currently outstanding or subsequently granted, exercise their options, or if warrant holders exercise their warrants to purchase shares of our common stock.

One investor, by virtue of ownership of our securities and related rights, may be able to control the Company.

The 10X Fund, L.P., or 10X Fund, owns all of our issued and outstanding Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock, collectively the Series B Preferred Stock, which are convertible into 12 million shares of our common stock. The 10X Fund owns related warrants exercisable to purchase an aggregate of 36 million shares of our common stock. We have issued approximately 2.1 million shares of our common stock as dividends on the Series B Preferred Stock. In addition, James C. Czirr, a general partner of the 10X Fund and Executive Chairman of our Board of Directors, owns or controls approximately 5 million shares of our common stock. As of December 31, 2010, on a fully diluted basis, assuming conversion of all Series B Preferred Stock and exercise of all the related warrants, the 10X Fund would own approximately 44.8% of our then outstanding shares of common stock, which together with Mr. Czirr's shares of our common stock, would constitute approximately 49.2% of the then outstanding shares. As holder of Series B Preferred Stock, the 10X Fund is entitled to elect two directors in a separate class vote, nominate three directors for election by all shares entitled to vote, and provide or withhold consent to a range of fundamental corporate action we may wish to undertake, such as recapitalization, sale of the company, and other matters. Such concentration of stock ownership and related rights could have the effect of delaying, deterring or preventing corporate events that our other security holders may desire or consider beneficial to the company.

As a "thinly-traded" stock, large sales can place downward pressure on our stock price.

Our common stock, despite certain increases of trading volume from time to time, experiences periods when it could be considered "thinly-traded." Finance transactions resulting in a large amount of newly issued shares that become readily tradable, or other events that cause current shareholders to sell shares, could place downward pressure on the trading price of our stock. In addition, the lack of a robust resale market may require a shareholder who desires to sell a large number of shares of common stock to sell the shares in increments over time to mitigate any adverse impact of the sales on the market price of our stock.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares by the selling stockholders. To the extent that the warrants are exercised by the selling stockholders for cash, rather than by cashless exercise, we will receive proceeds constituting the exercise price of such warrants. Any such proceeds received by us through warrant exercises will be used for working capital.

SELLING STOCKHOLDERS

In February 2008, we completed a private placement of 1,742,500 units to investors, with each unit consisting of (1) one share of our Series A 12% Convertible Preferred Stock, which is convertible into one share of common stock, (2) a five-year warrant to purchase one share of common stock at an exercise price of $1.50, and (3) a five-year warrant to purchase one share of common stock at an exercise price of $2.00.

This prospectus covers the sale by the selling stockholders from time to time of:

- 1,562,500 shares of common stock issuable upon the conversion of shares of our Series A 12% Convertible Preferred Stock sold in the February 2008 private placement; and
- 3,235,000 shares of common stock issuable upon the exercise of the warrants sold in the February 2008 private placement.

We issued the securities to the selling stockholders without registration under the Securities Act of 1933 (the “Securities Act”) in reliance upon the exemption provided by Section 4(2) of the Securities Act for transactions not involving a public offering. Prior to issuance, each selling stockholder represented to us that it was an accredited investor, as defined in Rule 501 of Regulation D under the Securities Act, and that it was acquiring the securities for investment purposes only and not with a view to, or sale in connection with, any distribution thereof.

The term “selling stockholder” includes (i) each person and entity that is identified in the table below (as such table may be amended from time to time by means of an amendment to the registration statement of which this prospectus forms a part) and (ii) any transferee, donee, pledgee or other successor of any person or entity named in the table that acquires any of the shares of common stock covered by this prospectus in a transaction exempt from the registration requirements of the Securities Act and that is identified in a supplement or amendment to this prospectus.

We have listed below:

- the name of each selling stockholder;
- the number of shares of common stock known to be beneficially owned by the selling stockholder based on beneficial ownership information available to us as of the date of this prospectus;
- the maximum number of shares of common stock being offered by each of them in this offering; and
- the number of shares of common stock to be owned by the selling stockholder after this offering (assuming sale of such maximum number of shares) and the percentage of the class which such number constitutes (if one percent or more).

The footnotes to the table identify each selling stockholder that is a registered broker-dealer or an affiliate of a registered broker-dealer.

Except as otherwise noted below, during the last three years, no selling stockholder has been an officer, director or affiliate of our company, nor has any selling stockholder had any material relationship with our company or affiliates during that period. Each selling stockholder represented at the closing of the private

placement that it did not have any contract, undertaking, agreement or arrangement with any person to sell, transfer, pledge, hypothecate, grant any option to purchase or otherwise dispose of any of the securities. Based on information provided to us by the selling stockholders, the selling stockholders purchased the securities in the ordinary course of business.

The shares of common stock being offered hereby are being registered to permit public secondary trading, and the selling stockholders are under no obligation to sell all or any portion of their shares included in this prospectus. The information contained in the following table is derived from information provided to us by selling stockholders, our books and records, as well as from our transfer agent. Where we were unable to obtain information from a selling stockholder with respect to the total number of shares beneficially owned by such holder, we have included only the shares underlying warrants held by such holder.

Unless otherwise indicated, each person has sole investment and voting power with respect to the shares indicated. For purposes of this table, a person or group of persons is deemed to have "beneficial ownership" of any shares as of a given date which such person has the right to acquire within 60 days after such date.

We do not know when or in what amounts a selling stockholder may offer shares for sale. The selling stockholders may not sell any or all of the shares offered by this prospectus. Because the selling stockholders may offer some or all of the shares pursuant to this prospectus, and because there are currently no agreements, arrangements or understandings with respect to any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholders after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling stockholders. The numbers of shares shown under the column "Common Stock Owned Upon Completion of this Offering" reflect the assumption solely for purpose of this table that such shares are still owned upon completion of the offering, which assumption is not intended to override the selling stockholder table in, as applicable, any other prospectus covering the resale of any other of our securities by the selling stockholders.

Name of Selling Stockholder	Common Stock Beneficially Owned Prior to the Offering	Common Stock Offered Pursuant to this Prospectus(1)	Common Stock Owned Upon Completion of this Offering	Percentage of Common Stock Owned Upon Completion of this Offering
William & Karen Belcher	75,000	75,000	—	*
Roy Brown	75,000	75,000	—	*
Clark Capraro	30,000	30,000	—	*
Estate of Mildred Christian	620,500	75,000	545,500	*
Dale Conaway(2)	302,000	30,000	272,000	*
Howard Crosby	150,000	150,000	—	*
James Czirr Trust(3)	346,232	300,000	46,232	*
Cynthia Dimmette	75,000	75,000	—	*
Fivex LLC(4)	300,000	300,000	—	*
Peter Fox	75,000	75,000	—	*
Gayle Galan Living Trust	75,000	75,000	—	*
Harvey & Sandra Gertsch	75,000	75,000	—	*
Irwin Goldstein	30,000	30,000	—	*
Richard & Mary Gumaer	37,500	37,500	—	*
James Hart	60,000	60,000(8)	—	*
Preston & Carrie Hawkins	225,000	225,000	—	*
Robert Jacobs	165,000	165,000	—	*
JAM Capital Associates, LLC(5)	60,000	60,000	—	*
Kendler Family Trust	75,000	75,000	—	*
Anatole Klyosov(6)	1,731,567	75,000	1,656,567	2.3%
Frederick Laun	150,000	150,000	—	*
Herbert Lazar Revocable Trust	30,000	30,000	—	*
Steven Lazar	75,000	75,000	—	*

Name of Selling Stockholder	Common Stock Beneficially Owned Prior to the Offering	Common Stock Offered Pursuant to this Prospectus(1)	Common Stock Owned Upon Completion of this Offering	Percentage of Common Stock Owned Upon Completion of this Offering
Thomas & Margaret McNulty	75,000	75,000	—	*
James McPhelan	75,000	75,000	—	*
Judith Melillo	75,000	75,000	—	*
Robert Myers	75,000	75,000	—	*
William Novak	75,000	75,000	—	*
Gilbert Omenn	250,000	150,000	100,000	*
Bertram Pitt	150,000	150,000	—	*
James & Julie Prendergast	50,000	50,000(8)	—	*
Michael & Paige Prendergast	75,000	75,000	—	*
Robert Rettig	75,000	75,000	—	*
Stephen & Peggy Rogers	75,000	75,000	—	*
Russo Family Living Trust	75,000	75,000	—	*
Robert & Claudine Salanski	75,000	75,000	—	*
Gary & Linda Sanford Revocable Living Trust	75,000	75,000	—	*
Earl Schalin	75,000	75,000	—	*
Charles Shafer	75,000	75,000	—	*
James Shaw	75,000	75,000	—	*
Michael Sheikh	90,000	90,000	—	*
David Smith	525,000	525,000	—	*
Bjarn & Glafira Sorensen	30,000	30,000	—	*
Irving Sparage Revocable Trust	75,000	75,000	—	*
Charles Stafford	75,000	75,000	—	*
Tailwind V.C., LLC(7)	75,000	75,000	—	*
Linda Upton Living Trust	30,000	30,000	—	*
Gary Zoellner	150,000	150,000	—	*
George Zoellner	30,000	30,000	—	*
TOTAL	7,417,799	4,797,500	2,620,299	3.6%

* Amount less than one percent.

Percentage calculations are based on 69,583,394 shares of our common stock issued and outstanding as of April 25, 2011.

(1) Unless otherwise indicated, two-thirds of the shares shown in this column for each selling stockholder are issuable upon the exercise of warrants, and the remaining one-third are issuable upon the conversion of shares of Series A 12% Convertible Preferred Stock.

(2) Former director.

(3) James C. Czirr is the trustee of the James Czirr Trust and is also Executive Chairman and Director of the Company.

(4) David Smith is the manager of Fivex LLC, a Connecticut limited liability company, and may be deemed to have dispositive power over the shares held by this entity. Mr. Smith disclaims beneficial ownership of these shares.

(5) Leonard Pearlman is the manager of JAM Capital Associates, LLC, a New York limited liability company, and may be deemed to have dispositive power over the shares held by this entity. Mr. Pearlman disclaims beneficial ownership of these shares.

(6) Chief Scientist of the Company. Includes 600,000 exercisable options.

(7) David Smith is the manager of Tailwind V.C., LLC, a Connecticut limited liability company, and may be deemed to have dispositive power over the shares held by this entity. Mr. Smith disclaims beneficial ownership of these shares.

(8) Represents shares issuable upon the exercise of warrants, Series A shares held by this shareholder have been converted to Common Stock.

PLAN OF DISTRIBUTION

Each selling stockholder and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of his, her or its shares on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling shares:

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

The selling stockholders may also sell shares under Rule 144 under the Securities Act rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA/NASD Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA/NASD IM-2440.

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

The selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of the Securities Act in connection with those sales. In that event, any commissions received by those broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the shares. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%) of the gross proceeds of any sale.

We are required to pay certain fees and expenses incurred by us incident to the registration of the shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because selling stockholders may be deemed to be “underwriters” within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the selling stockholders.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the shares may be resold by the selling stockholders without registration and without regard to any volume limitations by reason of Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the shares have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), any person engaged in the distribution of the shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations there under, including Regulation M, which may limit the timing of purchases and sales of the shares by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

BUSINESS

We are a development-stage company engaged in the discovery and development of therapeutics that target Galectin receptors that we believe enhance existing cancer treatments and could also be used in the treatment of tissue fibrosis, particularly liver fibrosis, inflammatory diseases, and enhancement of tumor vaccines. All of our products are presently in development, including pre-clinical and clinical trials.

Since our inception on July 10, 2000, our primary focus has been the development of a new generation of anti-cancer treatments using polysaccharide polymers that are aimed at increasing survival and improving the quality of life for cancer patients. Our lead product candidate, DAVANAT®, is a patented new chemical entity that we believe, when administered in combination with chemotherapy, biologics and vaccines, increases efficacy while reducing adverse side effects of the chemotherapy. The Company holds composition of matter and method of use patents on DAVANAT®, which were invented by the founders, without any license or royalty encumbrances.

In 2002, the Food and Drug Administration, or FDA, granted us an Investigational New Drug application, or IND, for use of DAVANAT® in combination with 5-fluorouracil, or 5-FU, to treat late-stage cancer patients with solid tumors. 5-FU is one of the most widely used chemotherapies for treatment of various types of cancer, including colorectal, breast, head and neck, and other gastrointestinal cancers. In September 2008, we submitted a clinical and pre-clinical package to the FDA in support of our DAVANAT® New Drug Application, or NDA. Following a meeting in December 2008, the FDA advised us that we would be required to conduct a Phase III trial to demonstrate superiority to the best standard of care for late stage colorectal cancer patients.

On December 17, 2010, we met with the FDA to present our Phase III clinical development program for DAVANAT®. Agreement was reached on the design of pivotal, randomized, controlled, and blinded Phase III clinical trials of DAVANAT® co-administered with standard chemotherapy for second line treatment of patients with metastatic colorectal cancer.

On March 9th, 2011 we announced that our Board of Directors named Peter G. Traber, M.D., President and Chief Executive Officer, effective March 17, 2011. Dr. Traber was named Interim Chief Medical Officer in June 2010 and appointed to the Board of Directors in February 2009. Dr. Traber succeeds Theodore D. Zucconi, Ph.D., who continues as a member of the Board of Directors. Dr. Zucconi also will direct Company operations with a focus on approvals and expansion of the Latin American business and manufacturing.

We were incorporated under Nevada law on January 26, 2001 and in May of that year acquired a Massachusetts corporation (organized on July 10, 2000) engaged in the business we now undertake. We have a wholly-owned Delaware subsidiary that we formed in 2003 to hold our cash and cash equivalents. We also have a wholly-owned Nevada subsidiary that we formed in August 2010 for the development of our technology in cardiovascular treatments.

Our Strengths and Strategies

Focus on novel therapeutic opportunities that target Galectin receptors. We believe our company is a pioneer focused on development of therapeutics that target Galectin proteins to treat cancer, enhance tumor vaccines, and treat inflammatory and fibrogenic diseases. We believe this offers a largely untapped area for treatment of disease.

Leverage extensive scientific expertise. Our scientists have substantial expertise, developed over decades, in the area of carbohydrates that target Galectin receptors. Our team has conducted research in therapeutic application of carbohydrate-based therapeutics for more than 20 years. Dr. Klyosov, who headed the Carbohydrate Research Laboratory at the USSR Academy of Sciences and was a visiting biochemistry professor at Harvard Medical School, holds more than 20 patents. We believe that his expertise, supplemented by members of our Scientific and Medical Advisory Boards, provides us with a substantial advantage in this relatively new area of drug development.

Completion of development milestones toward commercialization of DAVANAT® and 5-FU combination cancer therapy. We have completed important milestones in the development of DAVANAT® in combination with 5-FU to treat late-stage cancer patients with solid tumors. These include our submission of the Drug Master File, or DMF, to the FDA in May 2008, which we believe demonstrates our ability to produce commercial quantities of pharmaceutical-grade DAVANAT® under manufacturing standards known as cGMP ("current Good Manufacturing Process"); our submission in September 2008 of a clinical and pre-clinical package to the FDA in support of our DAVANAT® NDA; and our December 2008 and December 2010 pre-NDA meetings with the FDA which provided guidance as to certain components of Phase III trials of DAVANAT® that would be needed for an NDA demonstrating superiority to the best standard of care for colorectal patients.

Apply our technology to broad range of applications. Our research indicates that DAVANAT® has the potential for broad application. Following development of DAVANAT® in combination with chemotherapies and vaccines, we plan to also combine it with drugs to extend its use to treat other serious diseases, such as liver fibrosis. Pre-clinical studies indicate that DAVANAT®, and other proprietary therapeutics we have in development, may have application for advanced treatment of inflammatory disorders and organ fibrosis, particularly liver fibrosis.

Product Development

We are initially developing a pipeline of compounds that may be combined with chemotherapies, such as 5-FU, as well as vaccines so as to improve the clinical benefit to cancer patients. Based on research, we believe DAVANAT®, when combined with chemotherapies may increase the clinical benefit to cancer patients by extending survival and increasing quality of life through reduction of chemotherapy associated side effects. Our lead product candidate, DAVANAT®, is a patented new chemical entity that the FDA agreed on a clinical development plan for us to begin the Phase III development program following submission and approval of the final protocol.

To date, DAVANAT® has been administered to approximately 100 cancer patients in Phase I and II trials, as well as compassionate use INDs. Data from a Phase II trial for late-stage metastatic colorectal cancer patients showed DAVANAT® when combined with 5-FU extended median survival to 6.7 months with significantly reduced side effects, as compared to 4.6 months for best standard of care as determined by the patient's physician. Importantly, patients had a marked reduction in the incidence and severity of 5-FU related side effects. The reduction in side effects can improve the patients quality of life.

In addition, results of pre-clinical studies we have conducted in mice show that more 5-FU accumulates in the tumor when co-administered with DAVANAT® than when 5-FU is administered alone in the mice. Our pre-clinical and clinical trial data also show that DAVANAT® is safe and non-toxic. Our initial NDA for DAVANAT® will seek FDA approval for co-administration of DAVANAT® with 5-FU for intravenous injection for the treatment of metastatic colorectal cancer.

DAVANAT®

DAVANAT®, our lead product candidate in development, is a proprietary polysaccharide polymer comprised of mannose and galactose that is derived from plant sources and has a precisely defined chemical structure. More specifically, it is galactomannan which is isolated from seeds of guar and subjected to a controlled partial chemical and physical degradation. Guar is a legume grown in the United States and elsewhere for a wide variety of food and non-food uses.

We believe the mechanism of action for DAVANAT® is based upon interaction with lectins, which are cell surface proteins that bind only to a particular kind of carbohydrate. DAVANAT® is formulated to attach to specific lectins, called Galectins, which are expressed in high levels in the vast majority of tumor cells. We believe the structure of DAVANAT® is such that it is attracted to Galectin receptors that are specific and over-expressed by cancer cells. In cancer, the mechanism of action of Davanat® is the binding of galectins which disrupts their function in the extracellular space, on the surface of the cancer cell, or in its environment which

would include extracellular matrix and other cells such as lymphocytes and endothelium. The downstream effects of Davanat® blocking galectin function include the alteration of tumor invasiveness and metastasis, reduction in tumor angiogenesis, enhancement of cellular immunity to tumor cells, and potentially enhancing the sensitivity of cancer cells to chemotherapy. Galectins, therefore, offer a robust target for cancer because of the potential to act in multiple ways to affect cancer cells and Davanat® is a potent Galectin blocking agent.

Pre-clinical Studies of DAVANAT®

Our pre-clinical studies demonstrate that DAVANAT® when used in combination with chemotherapies, such as 5-FU and irinotecan, and biologics, such as Avastin®, may improve the clinical benefit of anti-cancer treatments. Pre-clinical studies also demonstrated delayed tumor growth and tumor shrinkage against a control group of animals when DAVANAT® was used in combination with standard therapies. These studies demonstrated that DAVANAT® could be used effectively with different chemotherapies and biologics.

Clinical Trial Development of DAVANAT®

Results from our Phase II clinical trial data in late-stage cancer patients shows that DAVANAT® extends median survival to 6.7 months from 4.6 months (or a 46% increase) after other treatments were exhausted. The results of this trial also demonstrated reduction of adverse gastrointestinal, hematological and other side effects of chemotherapy treatment.

- *Phase I Trial for Late-Stage Patients with Solid Tumors.* In 2005, we completed a Phase I study to evaluate DAVANAT®, alone and in combination with 5-FU, to treat solid tumors in a trial of 40 end-stage patients with advanced solid tumors who failed chemotherapy, radiation therapy, and/or surgical treatments. The objective of the open label study was to evaluate the safety and tolerability of escalating doses of DAVANAT® (30-280mg/m 2) when administered alone and in combination.

  Based on objective tumor assessment using Response Evaluation Criteria in Solid Tumors, or RECIST, the disease was stabilized in 14 of 26 of the evaluable patients with measurable disease. Furthermore, 7 of 10 patients were stabilized at the highest dose level of DAVANAT® administered in the study. Efficacy results are analyzed based on RECIST following completion of the second cycle of treatment. According to RECIST, a stable disease is a disease with neither sufficient shrinkage to qualify for Partial Response (more than 30% shrinkage) nor sufficient increase to qualify for Progressive Disease (greater than 20% increase) taking as reference the smallest sum longest diameter since the treatment started.

  The Phase I data also indicate that DAVANAT® was well tolerated by patients. The maximum tolerated dose was not reached indicating DAVANAT® is safe and has the potential for further dose escalation. Adverse side effects were primarily disease related. Additionally, the results showed that the DAVANAT®/5-FU combination remained in the bloodstream up to eight times longer, which we believe increases the efficacy of the treatment.

- *Phase II Trial for Late Stage Patients with Metastatic Colorectal Cancer.* In 2004, we initiated a Phase II clinical trial to further evaluate DAVANAT® for late-stage patients with metastatic colorectal cancer. The multi-center, open label, single-dose level study was designed to evaluate up to 15 patients in stage one, and up to 18 patients in stage two. The study, which was designed to evaluate the efficacy and safety of DAVANAT® in combination with chemotherapy when administered in monthly cycles, had two objectives: (1) to document the rate of response and stabilization of patients with advanced colorectal cancer; and (2) to continue evaluating the safety of the DAVANAT® in combination 5-FU. Dosing of patients began in May 2005. We stopped recruiting for the study in May 2006 because we achieved our objective. The data for the study indicates that based on objective tumor assessment one patient experienced a partial tumor response and the disease was stabilized in 6 of 20 patients. Data on 20 patients from this trial showed that DAVANAT® extended median survival. We tracked these patients and gathered data after they left the trial. The patients entered the trial with disease that progressed despite previously being treated with standard chemotherapies and biologics.

- *Phase II Trial for First-line Treatment of Patients with Biliary Cancer.* In 2007, we initiated a Phase II trial for the first-line treatment of patients with biliary (gall bladder) cancer. Biliary cancer may represent an opportunity for orphan drug status approval. See "FDA "Orphan Drug" Designation" below under "Government Regulation." The multi-center, open label, single-dose level study is designed to evaluate up to 42 patients. The study was designed to evaluate the efficacy and safety of DAVANAT® when administered for at least two monthly cycles or until disease progression. The trial had two objectives: (1) complete/partial tumor response in 20% of patients (17% in the first stage); and (2) the safety of DAVANAT® regimen in this patient population. We stopped the trial due to financial constraints in the second quarter of 2008 and do not expect to resume it.
- *Phase II Trial for First-line Treatment of Patients with Colorectal Cancer.* In 2006, we initiated a Phase II trial for initial treatment of colorectal cancer patients. The multi-center, open label, single-dose level study was designed to evaluate up to 50 patients who are unable to sustain the high toxicity of current intensive combination chemotherapy. The study was expected to evaluate the efficacy and safety of DAVANAT® when administered in combination with the current standard of care in two monthly cycles or until disease progression or toxicity. The primary objectives of the study were a complete or partial response in 33% of the patients and a secondary measurement of progression free survival at 6 and 12 months. We stopped the trial due to financial constraints in the second quarter of 2008 and do not expect to resume it.

See "Risk Factors — Risks Related to our Company — We have one drug candidate in clinical trials and results are uncertain" for additional discussion of risks related to clinical trials.

GM and GR Series of Anti-Fibrosis Compounds

We are also developing therapeutic compounds for treatment of other serious disease, such as liver fibrosis. The GM and GR series of compounds are first-in-class, novel carbohydrate compounds that significantly reduced collagen expression and reversed fibrosis in animal models.

Uncontrolled collagen expression is a pathological process that occurs during the fibrotic process, affecting various organs leading to scar tissue. Chemical toxicity, viral infection or physical injury cause liver, renal and other types of fibrosis. According to the American Liver Foundation, more than 25 million Americans are or have been afflicted with liver and biliary diseases. The disease is even more of a problem outside the U.S. because of the prevalence of chronic hepatitis B and C that often results in fibrosis, and ultimately cirrhosis, of the liver. The area of anti-fibrotics is generating great interest based on their potential to impact chronic liver disease. The need for an effective therapeutic solution for liver fibrosis is acute, and this innovative project would significantly advance treatment in this critical area. The only current treatment for late stage fibrosis or cirrhosis is a liver transplant. Therefore, carbohydrate polymers were created and screened to inhibit collagen production in in-vivo and in-vitro fibrosis models.

In December 2010, we announced that we had entered into an extension of our research collaboration with Mount Sinai School of Medicine which began in 2006 to evaluate, in pre-clinical models, the anti-fibrotic effects of several of the Company's novel, Galectin-targeting compounds. Mount Sinai has one of the world's largest, most productive and well-respected liver disease investigation programs.

Dr. Scott Friedman, Chief of Liver Diseases, Division of Medicine at Mount Sinai, has performed pioneering research into the underlying causes of scarring, or fibrosis associated with chronic liver disease, which affects millions worldwide. Dr. Friedman was among the first to isolate and characterize the hepatic stellate cell, which is the key cell type responsible for scar production in liver.

In initial experiments in Dr. Friedman's laboratory, our polysaccharide compounds that target Galectin receptors markedly reduced the markers of fibrosis in cultured stellate cells and reversed the formation of fibrotic tissue in diseased rat livers. In the extension of our research collaboration, he and his team will be testing several

of our galactomannans and rhamnogalacturonans as Galectin blockers in liver anti-fibrotic therapies. Specifically Dr. Friedman will complete the in vitro and in vivo analysis of several of our compounds for anti-fibrotic efficacy and mechanism of action using state of-the-art molecular methods to assess fibrosis, fibrogenic gene expression and liver function. This work will lead to an IND to begin clinical investigations.

Patents and Proprietary Rights

Our development and commercial viability, and ultimately our competitiveness, depend on our ability to develop and maintain the proprietary aspects of our technology and operate without infringing on the proprietary rights of others. We rely on a combination of patent, trademark, trade secret and copyright law and contract restrictions to protect the proprietary aspects of our technologies. We seek to limit disclosure of our intellectual property by requiring employees, consultants, and any third parties with access to our proprietary information to execute confidentiality agreements and by restricting access to that information.

As of December 31, 2010, we held five U.S. patents and have patent applications pending from the U.S. Patent and Trademark Office. Many of our patents and patent applications cover composition of matter for complex carbohydrate drugs and methods of use for reducing toxicity and enhancing chemotherapeutic drugs by co-administering a polysaccharide with a chemotherapeutic agent. We have corresponding patent applications pending in Europe, Canada, Israel, Brazil, Japan, China and Australia. Additionally, we have patent applications in other areas to utilize our carbohydrate-based compounds to treat disease other than cancer. See “Risk Factors — Risks Related to the Drug Development Industry — Our competitive position depends on protection of our intellectual property.

Research

Our initial focus is on the design and analysis of Galectin targeting therapeutics to improve the clinical benefit of chemotherapeutic agents and biologics. We contract with independent laboratories and other facilities to conduct our research, which is designed, evaluated and managed by our scientists. We do not anticipate building in-house research or development facilities or hiring staff other than for purposes of designing and managing our out-sourced research.

As we develop products eligible for clinical trials, we contract with independent parties to design the trial protocols, arrange for and monitor the clinical trials, collect data and analyze data. In addition, certain clinical trials for our products may be conducted by government-sponsored agencies and will be dependent on governmental participation and funding. Our dependence on independent parties and clinical sites involves risks including reduced control over the timing and other aspects of our clinical trials.

Our research and development expenditures totaled $19.5 million for the cumulative period from inception (July 10, 2000) through December 31, 2010. During the years ended December 31, 2010 and 2009, our expenditures for research and development were $1.1 million for each year.

Manufacturing and Marketing

We are a development stage company at this time and do not intend to establish internal facilities for the manufacture of our products for clinical or commercial production. To have our products manufactured, we have developed and will continue to develop relationships with third-parties that have established manufacturing capabilities. We are not a party to any long-term agreement with any of our suppliers and, accordingly, we have our products manufactured on a purchase-order basis from one of two primary suppliers.

Because our products are in the development stage, we have not created a sales and marketing staff to commercialize pharmaceutical products. If we develop products eligible for commercial sale, we will need to develop a sales and marketing capability or rely on third parties such as licensees, collaborators, joint venture

partners or independent distributors to market and sell those products. Our dependence on third-party manufacturers and marketers will involve risks relating to our reduced control, and other risks including those discussed in “Risk Factors — Risks Related to our Company — We will depend on third parties to manufacture and market our products and to design trial protocols, arrange for and monitor the clinical trials, and collect and analyze data.”

Competition

Many biotechnology and pharmaceutical companies are developing new technologies for the treatment of cancer and other diseases. While companies may broaden the market for our products they may also provide competitive alternatives to our products.

See “Risk Factors — Risks Related to the Drug Development Industry — We face intense competition in the biotechnology and pharmaceutical industries” for additional discussion related to our current and potential competition.

Government Regulation

The research, development, testing, manufacture, labeling, promotion, advertising, distribution, and marketing, among other things, of our products are extensively regulated by governmental authorities in the United States and other countries. The FDA regulates drugs under the federal Food, Drug, and Cosmetic Act and its implementing regulations. Failure to comply with the applicable U.S. requirements may subject us to administrative or judicial sanctions, such as FDA refusal to approve pending NDAs, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, and/or criminal prosecution.

Drug Approval Process

Drugs may not be marketed in the U.S. until the FDA has approved them. The steps required before a drug may be marketed in the U.S. include (similar rules may apply in other countries):

1. Pre-clinical laboratory tests, animal studies, and formulation studies,
2. Submission to the FDA of an IND for human clinical testing, which must become effective before human clinical trials may begin,
3. Adequate and well-controlled human clinical trials to establish the safety and efficacy of the drug for each indication,
4. Submission to the FDA of an NDA,
5. Satisfactory completion of an FDA inspection of the manufacturing facility or facilities, at which the drug is produced to assess compliance with cGMP established by the FDA,
6. FDA review and approval of the NDA, and
7. FDA review and approval of a trademark used in connection with a pharmaceutical.

Pre-clinical tests include laboratory evaluation of product chemistry, toxicity, and formulation, as well as animal studies. The results of the pre-clinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND, which must become effective before human clinical trials may begin and the FDA must resolve any outstanding FDA concerns or questions before clinical trials can proceed. There is no certainty that submission of an IND will result in the FDA allowing clinical trials to begin.

Clinical trials involve the administration of the investigational drug to human subjects under the supervision of qualified investigators. Clinical trials are conducted under protocols detailing the objectives of the study, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Each trial must be reviewed and approved by an independent Institutional Review Board, IRB, before it can begin. Study subjects must sign an informed consent form before participating in a clinical trial. Phase I usually involves the initial introduction of the investigational drug into patients to evaluate its safety, dosage tolerance, pharmacodynamics, and, if possible, to gain an early indication of its effectiveness. Phase II usually involves trials in a limited patient population to (i) evaluate dosage tolerance and appropriate dosage; (ii) identify possible adverse effects and safety risks; and (iii) evaluate preliminarily the efficacy of the drug for specific indications. Phase III trials usually further evaluate clinical efficacy and test further for safety by using the drug in its final form in an expanded patient population. There is no assurance that these trials will be completed within a specified period of time, if at all.

Assuming successful completion of the required clinical testing, the results of the pre-clinical studies and of the clinical studies, together with other detailed information, including information on the manufacture and composition of the drug, are submitted to the FDA in an NDA requesting approval to market the product for one or more indications. Before approving an NDA, the FDA usually will inspect the facilities at which the drug is manufactured, and will not approve the product unless compliance with cGMP is satisfactory. If the FDA evaluates the NDA and the manufacturing facilities as acceptable, the FDA will issue an approval letter. If the FDA evaluates the NDA submission or the manufacturing facilities as not acceptable, the FDA will outline the deficiencies in the submission and often will request additional testing or information. Even if an applicant submits the requested additional information, the FDA ultimately may decide that the NDA does not satisfy the regulatory criteria for approval. The testing and approval process requires substantial time, effort, and financial resources, and there is no assurance that any approval will be granted on a timely basis, if at all. After approval, certain changes to the approved product, such as adding new indications, manufacturing changes, or additional labeling claims are subject to further FDA review and approval.

See “Risk Factors — Risks Related to the Drug Development Industry — We will need regulatory approvals to commercialize our products” for additional discussion of regulatory risks related to our drug development program.

FDA Priority Review

FDA procedures provide for priority review of an NDA submitted for drugs that, compared to currently marketed products, offer a significant improvement in the treatment, diagnosis, or prevention of a disease. NDAs that are granted priority review are acted upon more quickly than NDAs given standard review. If we were to seek priority review, there can be no guarantee that the FDA will grant priority review status, that priority review status will affect the time of review, or that the FDA will approve the NDA submitted for any of our product candidates, whether or not priority review status is granted.

Post-Approval Requirements

If FDA approval of one or more of our products is obtained, we will be required to comply with a number of post-approval requirements. For example, holders of an approved NDA are required to report certain adverse reactions to the FDA and to comply with certain requirements concerning advertising and promotional labeling for their products. Also, quality control and manufacturing procedures must continue to conform to cGMP after approval, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMP. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance. In addition, discovery of problems with a product after approval may result in restrictions on a product, manufacturer, or holder of an approved NDA, including withdrawal of the product from the market. Also, new government requirements may be established that could delay or prevent regulatory approval of our products under development.

Regulation Outside the United States

Before our products can be marketed outside of the United States, they are subject to regulatory approval similar to that required in the United States, although the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country. No action can be taken to market any product in a country until an appropriate application has been approved by the regulatory authorities in that country. The current approval process varies from country to country, and the time spent in gaining approval varies from that required for FDA approval. In certain countries, the sales price of a product must also be approved. The pricing review period often begins after market approval is granted. No assurance can be given that even if a product is approved by a regulatory authority, satisfactory prices will be approved for such product.

Environmental Regulation

Pharmaceutical research and development involves the controlled use of hazardous materials. Biotechnology and pharmaceutical companies must comply with laws and regulations governing the use, generation, manufacture, storage, air emission, effluent discharge, handling and disposal of certain materials, biological specimens and wastes. We do not anticipate building in-house research, development or manufacturing facilities, and, accordingly, do not expect to have to comply directly with environmental regulation. However, our contractors and others conducting research, development or manufacturing activities for us may be required to incur significant compliance cost, and this could in turn could increase our expense or delay our completion of research or manufacturing programs.

Employees

As of December 31, 2010, we had six full-time employees, two of whom were involved primarily in management of our pre-clinical research and development and clinical trials and four who were involved primarily in financial management and administration of our company. We also had four part-time contractors, one of whom serves as our medical director, one of whom provides manufacture and clinical trial support and two of whom provide financial management services.

Properties

We lease 9,400 square feet for our executive offices located at 7 Wells Avenue, Newton, Massachusetts. We have a five year lease that commenced in August 2006 with an option to extend for an additional five years. We believe this space is suitable for our present operations and adequate for foreseeable expansion of our business.

Legal Proceedings

Other than claims and legal proceedings that arise from time to time in the ordinary course of business which are not material, we have no pending legal proceedings except as follows:

On January 30, 2008, Custom Equity Research, Incorporated (d/b/a Summer Street Research Partners) (“Summer Street”) filed a lawsuit against us in the Superior Court of the Commonwealth of Massachusetts, alleging claims for breach of contract, declaratory judgment and unjust enrichment arising out of an engagement letter under which Summer Street agreed to provide institutional investment placement services to us. Summer Street claims it is entitled to a placement fee for each placement made during the term of the agreement and for each issuance of securities made or agreed to be made by us from October 17, 2007 through November 16, 2008. We initially responded to the lawsuit with a motion to dismiss, which the Court denied on June 23, 2008, finding that the letter agreement was ambiguous with respect to Summer Street’s entitlement to compensation. The Court also denied Summer Street’s motion for a prejudgment attachment and trustee process, preliminarily finding that Summer Street was not likely to prevail on any of its claims. We filed an answer denying Summer Street’s material allegations. Discovery is currently under way. A trial date has been set for November 8, 2011. We believe the lawsuit is without merit and intends to contest it vigorously.

We are in receipt of a letter dated January 12, 2011 from Maxim Group ("Maxim"), which has acted as a Placement Agent for us. The letter advises that Maxim has been named as a respondent in a FINRA arbitration matter commenced by Summer Street, alleging claims for tortious interference with advantageous business and contractual relations, fraud and deceit, negligent misrepresentation, unjust enrichment, violation of Massachusetts Consumer Protection Act, Mass. Gen. Laws ch. 93A, and civil conspiracy, arising out of our termination of our relationship with Summer Street and its engagement of Maxim as its placement agent. We have agreed to indemnify and provide a defense to Maxim in accordance with the Placement Agreements between Maxim and us. We believe that the arbitration is without merit and intend to assist Maxim in its vigorous defense.

Market for Registrant's Common Equity and Related Stockholder Matters

Price Range of Common Stock

Following the delisting of our common stock from the NYSE Alternext US as of the close of trading on January 9, 2009, our common stock has been quoted on the OTC Bulletin Board since January 21, 2009 under the symbol "PRWP.OB". The high and low sale prices for our common stock as reported on the NYSE Alternext US and OTC Bulletin Board, for the periods indicated below were as follows:

	High	Low
Fiscal Year Ended December 31, 2011		
First Quarter	$1.44	$0.87
Fiscal Year Ended December 31, 2010		
First Quarter	$0.50	$0.26
Second Quarter	$0.89	$0.41
Third Quarter	$0.82	$0.48
Fourth Quarter	$1.04	$0.62
Fiscal Year Ended December 31, 2009		
First Quarter	$0.42	$0.05
Second Quarter	$0.59	$0.20
Third Quarter	$0.50	$0.27
Fourth Quarter	$0.44	$0.24

Holders of Common Stock

As of February 23, 2011, there were 250 shareholders of record of our common stock. Because shares of our common stock are held by depositaries, brokers and other nominees, the number of beneficial holders of our shares is substantially larger than the number of record holders. Based on information available to us, we believe there are 6,652 non-objecting beneficial owners of our shares of our common stock in addition to the record holders.

Dividends

There have been no cash dividends declared on our common stock since our company was formed. Dividends are declared at the sole discretion of our Board of Directors. Our intention is not to declare cash dividends and retain all cash for our operations.

Management's Discussion and Analysis of Financial Condition and Results of Operations

In addition to historical information, the following Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements as defined under federal securities laws and is subject to the safe harbor created therein for forward-looking statements. Such statements include, but are not limited to, statements concerning our anticipated operating results, research and development, clinical trials, regulatory proceedings, and financial resources, and can be identified by use of words such as, for example, "anticipate," "estimate," "expect," "project," "intend," "plan," "believe" and "would," "should," "could" or "may." Forward-looking statements are based on current expectations, estimates and projections about the industry and markets in which Pro-Pharmaceuticals operates, and management's beliefs and assumptions. These statements are not guarantees of future performance and involve certain known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Such risks and uncertainties are related to, without limitation, our early stage of development, our dependence on outside capital, uncertainties of our technology and clinical trials, intellectual property litigation, uncertainties of regulatory approval requirements for our products, competition and stock price volatility in the biotechnology industry, limited trading volume for our stock, concentration of ownership of our stock, and other risks detailed herein and from time to time in our SEC reports. The following discussion should be read in conjunction with the accompanying consolidated financial statements and notes thereto of Pro-Pharmaceuticals appearing elsewhere herein.

Overview

We are a development-stage company engaged in the discovery and development of therapeutic compounds that target Galectin receptors that we believe enhance existing cancer treatments. We believe our therapeutics could also be used in the treatment of liver, microbial and inflammatory diseases. All of our products are presently in development, including pre-clinical and clinical trials.

Since our inception on July 10, 2000, our primary focus has been the development of a new generation of anti-cancer treatments using polysaccharide polymers which are designed to increase survival and improve the quality of life for cancer patients. Our lead product candidate, DAVANAT®, is a patented, new chemical entity that we believe, when administered in combination with chemotherapies or biologics, or vaccines increases efficacy while reducing serious adverse effects. We hold the patent on DAVANAT®, without any licensing or royalty obligations.

At December 31, 2010, we had $5,891,000 of unrestricted cash to fund our operations. Subsequent to year end through March 15, 2011, we received $2,209,000 from the exercise of warrants and options for 3,757,472 shares of our common stock. Also, we issued an additional 13 shares of Series C for $130,000 and received a grant payment of $234,000. We believe that with the cash received subsequent to year end and the cash on hand at December 31, 2010, there is sufficient cash to fund operations through 2012. We will require more cash to fund our operations and believe we will be able to obtain additional financing. However, there can be no assurance that we will be successful in obtaining such new financing or, if available, that such financing will be on terms favorable to us.

Development of DAVANAT® Technology

In 2002, the FDA granted an Investigational New Drug ("IND") application for us to administer DAVANAT® in combination with 5-FU to treat late-stage cancer patients with solid tumors. 5-FU is FDA-approved, and one of the most widely used chemotherapies for treatment of various types of cancer, including colorectal, breast and gastrointestinal. We believe that using DAVANAT® in combination with 5-FU enables greater absorption of the chemotherapy in cancer cells while reducing its toxic side effects.

The FDA also has granted us an IND for DAVANAT® to be administered with Avastin®, 5-FU and leucovorin in a combination therapy to treat early-stage colorectal cancer patients and an IND for DAVANAT®

to be administered with 5-FU to treat early stage bile duct cancer patients. In addition, the FDA also has granted us, on a case-by-case basis, the ability to treat patients with breast cancer in response to physicians' requests for so-called "compassionate use".

To date, DAVANAT® has been administered to approximately 100 cancer patients. Data from a Phase II trial for end-stage colorectal cancer patients showed that DAVANAT® in combination with 5-FU extended median survival to 6.7 months with significantly reduced side effects, as compared to 4.6 months for best standard of care as determined by the patients' physicians. These clinical trials also showed that patients experienced fewer adverse side effects of the chemotherapy and required less hospitalization.

Our pre-clinical and clinical trial data also show that DAVANAT® is well tolerated, safe and non-toxic.

We believe, based on the outcome of our clinical trials to date, that DAVANAT®, when co-administered with 5-FU or other chemotherapies or biologics is superior to the current standard of care. We plan to file NDAs for DAVANAT® in combination with other chemotherapies, biologics and vaccines.

According to its published guidance, the FDA initially determines whether a New Drug Application ("NDA") filing is complete for purposes of allowing a review, and, if allowed, then determines whether to approve the NDA, a process that takes six or ten months. Upon approval, an applicant may commence commercial marketing and distribution of the approved products.

In May 2008, we submitted a Drug Master File ("DMF") for DAVANAT® to the FDA. This is an important step toward the filing of our DAVANAT® NDA because a DMF contains confidential detailed information in support of the NDA about facilities, processes or articles used in the chemistry, manufacturing, controls, processing, packaging, and storing or stability of drugs. We believe the DMF represents a significant milestone in our eventual commercialization of DAVANAT® because it demonstrates our ability to produce commercial quantities of pharmaceutical-grade DAVANAT® under current Good Manufacturing Process ("cGMP") standards. A DMF can be cross-referenced by potential partners to use in combination with other therapies to expedite clinical studies and submission of NDAs.

In September 2008, we submitted a clinical and pre-clinical package to the FDA in support of our DAVANAT® NDA. The FDA reported to us in its minutes for the December 2008 meeting that we will be required to conduct a Phase III trial to demonstrate superiority to the best standard of care for late stage colorectal cancer patients. We expect to meet with the FDA to finalize our plans for the Phase III trial.

On December 17, 2010, we met with officials from the FDA to present our Phase III clinical development program for DAVANAT®. Agreement was reached on the design of pivotal, randomized, controlled, and blinded Phase III clinical trials of DAVANAT® co-administered with standard chemotherapy for second line treatment of patients with metastatic colorectal cancer.

On March 9th, 2011 we announced that our Board of Directors named Peter G. Traber, M.D., President and Chief Executive Officer, effective March 17, 2011. Prior to being named President and Chief Executive Officer, Dr. Traber had been our interim Chief Medical Officer and has been a member of our Board of Directors since February 2009. Dr. Traber was President Emeritus and former Chief Executive Officer of Baylor School of Medicine. His previous positions include Senior Vice President of Clinical Development and Medical Affairs and Chief Medical Officer of GlaxoSmithKline, and Chief Executive Officer of the University of Pennsylvania Health System. Dr. Traber succeeds Theodore D. Zucconi, Ph.D., who will continue as a member of the Board of Directors. Dr. Zucconi also will direct Company operations with a focus on approvals and expansion of the Latin American business and manufacturing.

Agreement with PROCAPS S.A.

On March 25, 2010, we granted PROCAPS S.A. ("PROCAPS") exclusive rights to market and sell DAVANAT® to treat cancer in Colombia, South America. PROCAPS is a large, international, privately held pharmaceutical company based in Barranquilla, Colombia. Under terms of the agreement, PROCAPS is responsible for obtaining regulatory and pricing approval in Colombia, South America. PROCAPS also will be responsible for the vial filling, packaging, marketing and distribution of DAVANAT® in the region.

Once approved for sale by regulators, we will receive a transfer payment for each dose of DAVANAT® shipped to PROCAPS, in addition to a royalty above a minimum annual sales threshold. In October 2010, we received payment of $200,000 and shipped DAVANAT® to PROCAPS for testing purposes. We retain all intellectual property rights and we are the owner of the regulatory approval of DAVANAT® in the region. PROCAPS has first negotiation rights to other countries in South and Central America and the Caribbean. Should we gain approval in Colombia, PROCAPS may then obtain the marketing authorization in 10 countries in Latin America.

The Company recorded the $200,000 payment as deferred revenue on the consolidated balance sheet as of December 31, 2010 and will recognize the revenue when the remaining deliverables of the collaboration agreement have been completed.

Results of Operations from the Years Ended December 31, 2010 and 2009

Research and Development Expense

	Year ended December 31,		2010 as Compared to 2009	
	2010	2009	$ Change	% Change
	(in thousands, except %)			
Research and development	$1,066	$1,110	$ (44)	(4)%

We generally categorize research and development expenses as either direct external expenses, comprised of amounts paid to third party vendors for services, or all other research and development expenses, comprised of employee payroll and general overhead allocable to research and development. We subdivide external expenses between clinical programs and pre-clinical activities. We consider a clinical program to have begun upon acceptance by the FDA, or similar agency outside of the United States, to commence a clinical trial in humans, at which time we begin tracking expenditures by the product candidate. We have one product candidate – DAVANAT® – in clinical trials at this time. Clinical program expenses comprise payments to vendors related to preparation for, and conduct of, all phases of the clinical trial, including costs for drug manufacture, patient dosing and monitoring, data collection and management, oversight of the trials and reports of results. Pre-clinical expenses comprise all research and development amounts incurred before human trials begin, including payments to vendors for services related to product experiments and discovery, toxicology, pharmacology, metabolism and efficacy studies, as well as manufacturing process development for a drug candidate.

Our research and development expenses for the years ended December 31, 2010 and 2009 were as follows:

	Year Ended December 31,	
	2010	2009
	(in thousands)	
Direct external expenses:		
Clinical programs	$ 608	$ 114
Pre-clinical activities	38	380
All other research and development expenses	420	616
	$1,066	$1,110

The decrease in our research and development expense for the year ended December 31, 2010 versus the same period in 2009 is due primarily to decreased pre-clinical activities and other research and development expenses offset by increased clinical programs related to a planned Phase III trial. Included in clinical programs are warrant expenses related to consultants ($222,000) during year ended December 31, 2010. The decrease in other research and development expenses is primarily due to decreased salary expenses ($54,000) and decreased stock-based compensation ($139,000). We plan to initiate a Phase III trial as soon as we raise sufficient additional funds which will serve to increase our research and development expense.

Both the time required and costs we may incur in order to commercialize a drug candidate that would result in material net cash inflow are subject to numerous variables, and therefore we are unable at this stage of our development to forecast useful estimates. Variables that make estimates difficult include the number of clinical trials we may undertake, the number of patients needed to participate in the clinical trial, patient recruitment uncertainties, trial results as to the safety and efficacy of our product, and uncertainties as to the regulatory agency response to our trial data prior to receipt of marketing approval. Moreover, the FDA or other regulatory agencies may suspend clinical trials if we or an agency believes patients in the trial are subject to unacceptable risks, or find deficiencies in the conduct of the clinical trial. Delays or rejections may also occur if governmental regulation or policy changes during our clinical trials or in the course of review of our clinical data. Due to these uncertainties, accurate and meaningful estimates of the ultimate cost to bring a product to market, the timing of costs and completion of our program and the period during which material net cash inflows will commence are unavailable at this time.

General and Administrative Expense

	Year ended December 31,		2010 as Compared to 2009	
	2010	2009	$ Change	% Change
	(in thousands, except %)			
General and administrative	$3,817	$4,983	$ (1,166)	(23)%

General and administrative expenses consist primarily of salaries, including stock based compensation, legal and accounting fees, insurance, investor relations, business development and other office related expenses. The primary reason for the decrease for the year ended December 31, 2010 as compared to the same period in 2009 is due to decreased payroll ($710,000) primarily as the result of the recognition of severance obligations in 2009 related to the departure of our former chief executive officer, decreased stock-based compensation expense ($291,000) and decreased legal and accounting costs ($557,000) primarily due to trade secrets litigation in 2009, offset by increased business development expenses ($471,000) as we increased our efforts to gain regulatory approval to commercialize DAVANAT® in South America.

Other Income and Expense

Other income and expense for the years ended December 31, 2010 and 2009 was a loss of $746,000 and $1,369,000, respectively. The loss for the year ended December 31, 2010 was due primarily to the change in fair value of warrant liabilities ($1,241,000) offset by other income ($489,000) related to a research grant. The loss for the year ended December 31, 2009 was due primarily to the change in fair value of warrant liabilities.

We were notified in November 2010 by the Internal Revenue Service that we have been awarded a total grant of $489,000 under the Qualifying Therapeutic Discovery Project Program (Section 48D of the Internal Revenue Code) for DAVANAT® and our GR/GM-Series of anti-fibrotic, cirrhosis compounds. Of this amount, $255,000 was received in 2010 with the remaining $234,000 received in February 2011 and included in grant receivable on the consolidated balance sheet at December 31, 2010.

Liquidity and Capital Resources

As described above in the Overview and elsewhere in this Annual Report on Form 10-K, we are in the development stage and have not generated any revenues to date. Since our inception on July 10, 2000, we have financed our operations from proceeds of public and private offerings of debt and equity. As of December 31, 2010, we raised a net total of $52.2 million from these offerings. At December 31, 2010, we had $5,891,000 of unrestricted cash and cash equivalents available to fund future operations. Subsequent to year end through March 15, 2011, we received $2,209,000 from the exercise of warrants and options for 3,757,472 shares of our common stock. Also, we issued an additional 13 shares of Series C for $130,000 and received a grant payment of $234,000. We believe that with the funds received subsequent to year end and the cash on hand at December 31, 2010, there is sufficient cash to fund operations through 2012.

We will require more cash to fund our operations and believe we will be able to obtain additional financing. However, there can be no assurance that we will be successful in obtaining such new financing or, if available, that such financing will be on terms favorable to us. We are actively seeking to raise additional capital and have significantly reduced our administrative and clinical spending. If we are unsuccessful in raising additional capital by December 2012, we may be required to cease operations or seek bankruptcy protection. Net cash used in operations decreased by $785,000 to $3,102,000 for 2010, as compared to $3,887,000 for 2009. Cash operating expenses decreased principally due to decreased general and administrative costs as a result of cost containment measures during the period which required overall lower cash expenditures.

No cash was provided by or used in investing activities during 2010, essentially unchanged from the same period in 2009.

Net cash provided by financing activities was $8,742,000 during 2010 as compared to $3,820,000 during 2009, due primarily to the transactions described below.

During the year ended December 31, 2010, we issued and sold, pursuant to the 10X Agreement, 770,000 shares of Series B-2 convertible into 3,080,000 shares of common stock and related warrants for 9,240,000 shares of common stock, resulting in net proceeds of $1,463,000.

On December 30, 2010, the Company issued and sold 212 shares of Series C, convertible into 2,120,000 shares of common stock, resulting in net proceeds of $2,073,000.

During the year ended December 31, 2010, warrants and options for common stock were exercised resulting in the issuance of 10,400,062 shares of common stock and net cash proceeds of $5,206,000.

Payments Due Under Contractual Obligations

The following table summarizes the payments due under our contractual obligations at December 31, 2010, and the effect such obligations are expected to have on liquidity and cash flow in future periods:

	Payments due by period (in thousands)				
Contractual Obligations	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating leases	$167	$ 167	$ —	$ —	$ —
Separation agreement	293	293	—	—	—
Total payments due under contractual obligations	$460	$ 460	$ —	$ —	$ —

Operating leases. On May 1, 2006, we entered into an operating lease for office space. The lease commenced on August 11, 2006, and extends for five years and terminates on September 30, 2011. The lease provides for annual base rental payments of $235,000 in the first year, increasing in each subsequent lease year to $244,000, $253,000, $263,000 and $273,000, respectively. In addition to base rental payments included in the

contractual obligations table above, we are responsible for our pro-rata share of increases in the operating expenses for the building after calendar year 2006 and taxes for the building after fiscal year 2007. We have the option to extend the term of the lease for an additional five year period at the prevailing market rate at the time of exercise. In connection with this lease, a commercial bank has issued a letter of credit collateralized by cash we have on deposit with the bank of $59,000. Additionally, we have a non-cancellable lease for a car, for our former chief executive officer, which expired in January 2011 and which is included in the severance agreement line of the contractual obligations table.

Separation agreement. In February 2009, we entered into a Separation Agreement in connection with the resignation of David Platt, Ph.D., our former Chief Executive Officer and Chairman of the Board of Directors. The Separation Agreement provides that we shall continue to pay Dr. Platt his current salary at a monthly rate of $21,667 for 24 months and that we may defer payment of a portion of such salary amounts greater than $10,000 per month (so long as Dr. Platt does not receive payments of less than the salary payments being made to the Company's Chief Executive Officer). However, all deferred amounts will continue to accrue and will be payable on the earlier of (i) the Company receiving a minimum of $4.0 million of funding after February 12, 2009, or (ii) February 12, 2011. We also agreed to continue to (i) provide health and dental insurance benefits to Dr. Platt, until the first to occur of February 12, 2011 or the date Dr. Platt and his family become eligible to receive health and dental insurance benefits under the plans of a subsequent employer and (ii) make the current monthly lease payments on his automobile until February 12, 2011. We recognized the full amount of the salary, health insurance and automobile during the first quarter of 2009. The remaining liability related to this severance is reflected in accrued expenses ($293,000) on the consolidated balance sheet at December 31, 2010 and in accrued expenses ($154,000) and other long-term liabilities ($280,000) on the consolidated balance sheet at December 31, 2009. The final payment was paid to Dr. Platt on February 12, 2011.

The Separation Agreement also provides for the deferral of a $1.0 million severance payment due to Dr. Platt under his employment agreement until the occurrence of any of the following milestone events: (i) the approval by the Food and Drug Administration for a new drug application ("NDA") for any drug candidate or drug delivery candidate based on the DAVANAT® technology (whether or not such technology is patented). We also will grant Dr. Platt fully vested cashless stock option with identical terms to purchase at least 500,000 shares of common stock; (ii) consummation of a transaction with a pharmaceutical company expected to result in at least $10.0 million of equity investment or $50 million of royalty revenue to the Company. We also will grant Dr. Platt fully vested cashless-exercise stock options exercisable to purchase at least 300,000 shares of our common stock for ten (10) years at an exercise price not less than the fair market value of the Common Stock determined as of the date of the grant; or (iii) the renewed listing of our securities on a national securities exchange. Payment upon the events (i) and (iii) may be deferred up to nine months, and if we have insufficient cash at the time of any of such events, we may issue Dr. Platt a secured promissory note for such amount. If we file a voluntary or involuntary petition for bankruptcy, whether or not a milestone event has occurred, such event shall trigger our obligation to pay the $1.0 million with the result that Dr. Platt may assert a claim for such obligation against the bankruptcy estate. Due to the uncertainties regarding the achievement of any of the milestones as described, we have not accrued for the $1.0 million severance nor have we recognized the value of the unissued stock options as of December 31, 2010. When it is deemed probable that one or more of the milestone events will be achieved, we will then recognize the $1.0 million severance and the expense related to the issuance of the stock option at that time based on the then current fair value.

Other. We have engaged outside vendors for certain services associated with our clinical trials. These services are generally available from several providers and, accordingly, our arrangements are typically cancellable on 30 days notice.

Off-Balance Sheet Arrangements

We have not created, and are not a party to, any special-purpose or off-balance sheet entities for the purpose of raising capital, incurring debt or operating parts of our business that are not consolidated into our financial statements. We do not have any arrangements or relationships with entities that are not consolidated into our financial statements that are reasonably likely to materially affect our liquidity or the availability of capital resources.

Critical Accounting Policies and Estimates

Our significant accounting policies are more fully described in Note 2 to our consolidated financial statements included elsewhere in this Registration Statement on Form S-1. Certain of our accounting policies, however, are critical to the portrayal of our financial position and results of operations and require the application of significant judgment by our management, which subjects them to an inherent degree of uncertainty. In applying our accounting policies, our management uses its best judgment to determine the appropriate assumptions to be used in the determination of certain estimates. Our more significant estimates include stock option and warrant liability valuations and performance vesting features of certain of these instruments, useful lives and potential impairment of property and equipment and intangible assets, accrued liabilities, deferred income taxes and cash flow. These estimates are based on our historical experience, terms of existing contracts, our observance of trends in the industry, information available from other outside sources, and on various other factors that we believe to be appropriate under the circumstances. We believe that the critical accounting policies discussed below involve more complex management judgment due to the sensitivity of the methods, assumptions and estimates necessary in determining the related asset, liability, revenue and expense amounts.

Intangible Assets. Intangible assets include patent costs, consisting primarily of related legal fees, which are capitalized as incurred and amortized over an estimated useful life of five years from issuance. We review the intangible assets for potential impairment on an annual basis or whenever events or changes in circumstances indicate that the asset may be impaired.

Accrued Expenses. As part of the process of preparing our consolidated financial statements, we are required to estimate accrued expenses. This process involves identifying services that third parties have performed on our behalf and estimating the level of service performed and the associated cost incurred on these services as of each balance sheet date in our consolidated financial statements. Examples of estimated accrued expenses include contract service fees in conjunction with pre-clinical and clinical trials, professional service fees, such as those arising from the services of attorneys and accountants and accrued payroll expenses. In connection with these service fees, our estimates are most affected by our understanding of the status and timing of services provided relative to the actual services incurred by the service providers. In the event that we do not identify certain costs that have been incurred or we under- or over-estimate the level of services or costs of such services, our reported expenses for a reporting period could be understated or overstated. The date on which certain services commence, the level of services performed on or before a given date, and the cost of services are often subject to our judgment. We make these judgments based upon the facts and circumstances known to us in accordance with accounting principles generally accepted in the U.S.

Warrants. We have issued common stock warrants in connection with the execution of certain equity and debt financings and consulting agreements. Certain warrants are accounted for as derivative liabilities at fair value. Such warrants do not meet the criteria that a contract should not be considered a derivative instrument if it is (1) indexed to its own stock and (2) classified in stockholders' equity. Changes in fair value of derivative liabilities are recorded in the consolidated statement of operations under the caption "Change in fair value of warrant liabilities." Warrants that are not considered derivative liabilities are accounted for at fair value at the date of issuance in additional paid-in capital. The fair value of warrants is determined using the Black-Scholes option-pricing model using assumptions regarding volatility of our common share price, remaining life of the warrant, and risk-free interest rates at each period end.

Stock-Based Compensation. Stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the service period, which generally represents the vesting period. For awards that have performance based vesting conditions we recognize the expense over the estimated period that the awards are expected to be earned. We use the Black-Scholes option-pricing model to calculate the grant date fair value of stock options. The expense recognized over the service period is required to include an estimate of the awards that will be forfeited.

Research and Development Expenses. Costs associated with research and development are expensed as incurred. Research and development expenses include, among other costs, salaries and other personnel-related costs, and costs incurred by outside laboratories and other accredited facilities in connection with clinical trials and preclinical studies.

Recent Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board issued Accounting Standards Update No. 2010-06 for Fair Value Measurements and Disclosures (Topic 820): *Improving Disclosures about Fair Value Measurements*. This Update requires new disclosures for transfers in and out of Level 1 and 2 and activity in Level 3. This Update also clarifies existing disclosures for level of disaggregation and about inputs and valuation techniques. The new disclosures are effective for interim and annual periods beginning after December 15, 2009, except for the Level 3 disclosures, which are effective for fiscal years beginning after December 15, 2010 and for interim periods within those years. Other than requiring additional disclosures, adoption of this new guidance did not have a material impact on the Company’s financial statements and is not expected to have a significant impact on the reporting of the Company’s financial condition or results of operations.

In April 2010, the FASB issued ASU No. 2010-17, Revenue Recognition — Milestone Method. This ASU provides guidance on the criteria that should be met for determining whether the milestone method of revenue recognition is appropriate. Under the milestone method of revenue recognition, consideration that is contingent upon achievement of a milestone in its entirety can be recognized as revenue in the period in which the milestone is achieved only if the milestone meets all criteria to be considered substantive. This standard provides the criteria to be met for a milestone to be considered substantive which includes that: a) performance consideration earned by achieving the milestone be commensurate with either performance to achieve the milestone or the enhancement of the value of the item delivered as a result of a specific outcome resulting from performance to achieve the milestone; and b) it relates to past performance and be reasonable relative to all deliverables and payment terms in the arrangement. This standard is effective on a prospective basis for milestones achieved in fiscal years beginning on or after June 15, 2010. Although the Company is still evaluating the impact of this standard, management does not expect its adoption to have a material impact on the Company’s financial condition or results of operations.

DIRECTORS AND EXECUTIVE OFFICERS

Board of Directors:

Name	Age as of 3/12/10	Position
Gilbert F. Amelio, Ph.D.	68	Director
James C. Czirr	57	Executive Chairman
Arthur R. Greenberg	64	Director
Rod D. Martin	41	Vice Chairman
S. Colin Neill	64	Director
Steven Prelack	53	Director
Jerald K. Rome	76	Director
Peter G. Traber, M.D.	55	Chief Executive Officer, President and Director
Theodore D. Zucconi	64	Director

Dr. Amelio was appointed a director on February 12, 2009. Dr. Amelio, who began his career at Bell Labs, is Senior Partner of Sienna Ventures, a privately-held venture capital firm, and has acted in this capacity since 2001. Dr. Amelio was Chairman and Chief Executive Officer of Jazz Technologies, Inc., a specialty wafer foundry, from 2005 until his retirement in 2008, when he was named Chairman Emeritus. Dr. Amelio was Chairman and Chief Executive Officer of Beneventure Capital, LLC, a venture capital firm from 1999 to 2005 and was Principal of Aircraft Ventures, LLC, a consulting firm from 1997 to 2004. Dr. Amelio was elected a Director of AT&T (NYSE: T) in 2001 and had previously served as an Advisory Director of AT&T from 1997 to 2001. He served as a Director of Pacific Telesis Group from 1995 until the company was acquired by AT&T in 1997. Dr. Amelio was chief executive officer of Apple, Inc. in 1996 and 1997, and from 1991 to 1996, he was chief executive officer of National Semiconductor Corporation. He was a director of Chiron, now a part of Novartis, from 1991 to 1996. We believe Dr. Amelio's qualifications to sit on our Board of Directors include his executive leadership and management experience, as well as his extensive experience with global companies, his financial expertise and his years of experience providing strategic advisory services to complex organizations.

Mr. Czirr, a Series B director, was appointed a director and became Chairman of the Board of Directors on February 12, 2009 and Executive Chairman of the Board on February 11, 2010. Mr. Czirr, age 57, is a co-founder of 10X Fund, L.P. and is a managing member of 10X Capital Management LLC, the general partner of 10X Fund, L.P. Mr. Czirr was a co-founder of Pro-Pharmaceuticals in July 2000. Mr. Czirr was instrumental in the early stage development of Safe Science Inc., a developer of anti-cancer drugs, served from 2005 to 2008 as Chief Executive Officer of Minerva Biotechnologies Corporation, a developer of nano particle bio chips to determine the cause of solid tumors, and was a consultant to Metalline Mining Company Inc. (NYSE Alternext US: MMG), a mineral exploration company seeking to become a low cost producer of zinc. Mr. Czirr received a B.B.A. degree from the University of Michigan. We believe Mr. Czirr's qualifications to sit on our Board of Directors include his extensive experience with developing entrepreneurial biotech companies, his financial expertise and his years of experience providing strategic advisory services to development stage organizations.

Mr. Greenberg, a Series B director, was appointed a director in August 2009. With 37 successful years in the semiconductor equipment and materials industries, Mr. Greenberg, age 64, is the President and Founder of Prism Technologies, Inc. Prism provides professional sales & marketing services and business development consulting services. Mr. Greenberg is a member of the board of UV Tech Systems, a designer and manufacturer of equipment used to fabricate semiconductor devices. Previously, he was the first President of SEMI, North America, a semiconductor equipment and materials industry trade association representing the interests, including public policy, of more than 2000 members doing business in North America. Mr. Greenberg received his Bachelor of Science degree in Business Administration from Henderson State University. We believe Mr. Greenberg's qualifications to serve on our Board of Directors include his experience in leading technology enterprises, as well as his experience as a CEO of a technology company.

Mr. Martin was appointed a director and became a member of the Nominating and Corporate Governance Committee and of the Compensation Committee on February 12, 2009. Mr. Martin was appointed Vice Chairman of the Board on February 11, 2010. Mr. Martin is a co-founder of 10X Fund, L.P. and is a managing member of 10X Capital Management LLC, the general partner of 10X Fund, L.P. Mr. Martin served as a senior advisor to PayPal, Inc. founder Peter Thiel, during the company's startup phase, its initial public offering and its subsequent acquisition by eBay Inc.; and afterward, served at Clarium Capital, Thiel's global macro hedge fund which had more than $7.8 billion under management. Mr. Martin is founder and chairman of the board of Advanced Search Laboratories, Inc., and also serves as a director of Proxomo Software. He previously served as Director of Policy Planning & Research for former Arkansas Governor Mike Huckabee. He is a widely noted author and speaker, and leads several non-profit organizations. Mr. Martin holds a J.D. from Baylor Law School, a B.A. from the University of Arkansas, and was a Sturgis Fellow at Cambridge University in Great Britain. We believe Mr. Martin's qualifications to sit on our Board of Directors include his extensive experience with developing entrepreneurial technology companies and his years of experience providing strategic legal and advisory services to development stage organizations.

Mr. Neill, a director since May 2007, became President of Pharmos Corp. (PARS.PK) in 2008, and since 2006, was its Senior Vice President, Chief Financial Officer, Secretary, and Treasurer. From 2003 to 2006, Mr. Neill served as Chief Financial Officer, Treasurer and Secretary of Axonyx Inc., a biopharmaceutical company that developed products and technologies to treat Alzheimer's disease and other central nervous system disorders. Mr. Neill served as Senior Vice President, Chief Financial Officer, Secretary and Treasurer of ClinTrials Research Inc., a global contract research organization in the drug development business, from 1998 to 2001. From 2001 to 2003, Mr. Neill served as an independent consultant assisting start-up and development stage companies in raising capital. Earlier experience was gained as Vice President Finance and Chief Financial Officer of BTR Inc., a U.S. subsidiary of BTR plc, a British diversified manufacturing company, and Vice President Financial Services of The BOC Group Inc., a British owned industrial gas company with substantial operations in the health care field. Mr. Neill served four years with American Express Travel Related Services, first as chief internal auditor for worldwide operations and then as head of business planning and financial analysis. Mr. Neill began his career in public accounting with Arthur Andersen LLP in Ireland and later with Price Waterhouse LLP as a senior manager in New York City. He also served with Price Waterhouse for two years in Paris, France. Mr. Neill graduated from Trinity College, Dublin with a first class honors degree in business/economics and he holds a masters degree in Accounting and Finance from the London School of Economics. He is a Certified Public Accountant in New York State and a Chartered Accountant in Ireland. We believe Mr. Neill's qualifications to sit on our Board of Directors include his executive leadership and management experience, as well as his financial expertise with public and financial accounting matters for technology and life science organizations.

Mr. Prelack, a director since April 2003, has been since July 2010 Senior Vice President of Operations and Chief Financial Officer of VetCor which owns and operates 49 veterinary hospitals. Previously, from 2001, he was Senior Vice President, Chief Financial Officer and Treasurer of VelQuest Corporation, a provider of automated compliance software solutions for the pharmaceutical industry. In this capacity, Mr. Prelack oversees sales, business development, operations and finance. Mr. Prelack is a director of Codeco Corporation, a designer and manufacturer of custom resisters and switches, and is a member of the Strategic Advisory Board of BioVex, a Biotechnology company focused on cancer. Mr. Prelack served as Director and Audit Committee Chair for BioVex from 2007 through 2009. Mr. Prelack, a Certified Public Accountant, received a B.B.A. degree from the University of Massachusetts at Amherst in 1979. We believe Mr. Prelack's qualifications to sit on our Board of Directors include his extensive experience with public and financial accounting matters for technology organizations.

Mr. Rome, a director since March 2004, has been a private investor since 1996. Mr. Rome founded Amberline Pharmaceutical Care Corp., a marketer of non-prescription pharmaceuticals, in 1993 and served as its President from 1993 to 1996. From 1980 to 1990, he served as Chairman, President and Chief Executive Officer of Moore Medical Corp., a national distributor of branded pharmaceuticals and manufacturer and distributor of

generic pharmaceuticals and was previously Executive Vice President of the H.L. Moore Drug Exchange, a division of Parkway Distributors and predecessor of Moore Medical Corp. Mr. Rome received a B.S. degree in pharmaceutical sciences from the University of Connecticut. We believe Mr. Rome's qualifications to serve on our Board of Directors include his experience as a CEO of a pharmaceutical company, as well as his executive management and corporate governance expertise.

Dr. Traber, a director since February 2009, was appointed President and Chief Executive Officer effective March 17, 2011, and has served as Chief Medical Officer since June 2010. Dr. Traber is President Emeritus, and from 2003 to 2008 was Chief Executive Officer, of Baylor College of Medicine. From 2000 to 2003 he was Senior Vice President Clinical Development and Regulatory Affairs and Chief Medical Officer of GlaxoSmithKline plc. He has also served as Chief Executive Officer of the University of Pennsylvania Health System, as well as Chair of the Department of Internal Medicine and Chief of Gastroenterology for the University of Pennsylvania School of Medicine. Dr. Traber received his M.D. from Wayne State School of Medicine and a B.S. in chemical engineering from the University of Michigan. We believe Dr. Traber's qualifications to sit on our Board of Directors include his years of medical experience in the pharmaceutical and healthcare industries, as well as the deep understanding of our patients and our products.

Executive officers and key employees:

Peter G. Traber, M.D., Chief Executive Officer and President (see Board of Directors)

Anatole Klyosov, Ph.D., D.Sc., age 64, our Chief Scientist since the company's inception in 2000, is a co-inventor of our patented technology and a founder of Pro-Pharmaceuticals. Dr. Klyosov was vice president, research and development for Kadant Composites, Inc., a subsidiary of Kadant, Inc. (KAI-NYSE), where he directed, since 1996, a laboratory performing work in biochemistry, microbiology and polymer engineering. From 1990 to 1998, Dr. Klyosov was visiting professor of biochemistry, Center for Biochemical and Biophysical Sciences, Harvard Medical School, and from 1981 to 1990 he was professor and head of the Carbohydrates Research Laboratory at the A.N. Bach Institute of Biochemistry, USSR Academy of Sciences. Dr. Klyosov was elected as a member of the World Academy of Art and Sciences and is the recipient of distinguished awards including the USSR National Award in Science and Technology. He has published more than 250 peer-reviewed articles in scientific journals, authored books on enzymes, carbohydrates, and biotechnology, edited two books: *Carbohydrates in Drug Design* and *Galectins*, and holds more than 20 patents. Dr. Klyosov earned his Ph.D. and D.Sc. degrees in physical chemistry, and an M.S. degree in enzyme kinetics, from Moscow State University.

Eliezer Zomer, Ph.D., age 64, is Executive Vice President of Manufacturing and Product Development since the company's inception in 2000. Prior to joining our company, Dr. Zomer had been the founder of Alicon Biological Control, where he served from November 2000 to July 2002. From December 1998 to July 2000, Dr. Zomer served as Vice President of product development at SafeScience, Inc. and Vice President of Research and Development at Charm Sciences, Inc. from June 1987 to November 1998. Dr. Zomer received a B.Sc. degree in industrial microbiology from the University of Tel Aviv in 1972, a Ph.D. in biochemistry from the University of Massachusetts in 1978, and undertook a post-doctoral study at the National Institute of Health.

Anthony D. Squeglia, age 68, became our Chief Financial Officer in October 2007 and from 2003 served as our Vice President of Investor Relations. From 2001 to 2003, Mr. Squeglia was a Partner in JFS Advisors, a management consulting firm that delivered strategic services to entrepreneurial businesses that includes raising capital, business planning, positioning, branding, marketing and sales channel development. From 1996 to 2001, Mr. Squeglia was Director of Investor Relations and Corporate Communications for Quentra/Coyote Networks. Previously, Mr. Squeglia held management positions with Summa Four, Unisys, AT&T, Timeplex, Colonial Penn and ITT. Mr. Squeglia received an M.B.A. from Pepperdine University and a B.B.A. from The Wharton School, University of Pennsylvania.

Maureen Foley, age 70, has been our Chief Operating Officer since October 2001 and was formerly our Manager of Operations and acting Chief Financial Officer. She has provided 30 years of business and operations management experience including facility design, construction, and fit out, project management, IT, HR, press and public relations, accounting and finance to startup companies. Between 1999 and 2000 she managed business operations for eHealthDirect, Inc., a developer of medical records processing software; and ArsDigita, Inc., a web development company. From 1996 to 1999, she served as Manager of Operations with Thermo Fibergen, Inc., a developer of composite materials and a subsidiary of Thermo Fisher Scientific, Inc. Ms. Foley is a graduate of The Wyndham School, Boston, Massachusetts, with a major in Mechanical Engineering. Ms. Foley serves as Secretary to the Board.

None of the directors, executive officers and key employees shares any familial relationship.

Director Independence

The Company's Corporate Governance provides that a majority of the members of the Board, and each member of the Audit, Compensation and Nominating and Corporate Governance Committees, must meet certain criteria for independence. Based on the New York Stock Exchange independence requirements, the Company's Corporate Governance practices assist the Board in its determination of director independence.

Based on the New York Stock Exchange rules, Messrs. Czirr, Martin, Greenberg, Neill, Prelack, Rome and Dr. Amelio were affirmatively determined by the Board to be independent. Due to Dr. Zucconi's and Dr. Traber's employment with the Company, they are not considered independent. Also, none of the non-employee directors has any relationship with the Company other than being a director and stockholder, or any transaction or arrangement that interferes with each director's independence.

Policies with Respect to Transactions with Related Persons

The Nominating and Corporate Governance Committee and the Board have adopted a Code of Ethics, which is available at www.pro-pharmaceuticals.com, that sets forth various policies and procedures intended to promote the ethical behavior of the Company's employees, officers and directors. The Code of Ethics describes the Company's policy on conflicts of interest. The Nominating and Corporate Governance Committee monitors the ethical behavior of the Company's employees, officers and directors.

The executive officers and the Board are also required to complete a questionnaire on an annual basis which requires them to disclose any related person transactions and potential conflicts of interest. The responses to these questionnaires are reviewed by outside corporate counsel, and, if a transaction is reported by an independent director or executive officer, the questionnaire is submitted to the Chairperson of the Audit Committee for review. If necessary, the Audit Committee will determine whether the relationship is material and will have any effect on the director's independence. After making such determination, the Audit Committee will report its recommendation on whether the transaction should be approved or ratified by the entire Board.

Certain Relationships and Related Transactions

Since the beginning of fiscal 2009, the Company did not participate in any transactions in which any of the directors, Class B directors, executive officers, any beneficial owner of more than 5% of the Company's common stock, nor any of their immediate family members, had a direct or indirect material interest. During 2010, we entered into an agreement with one of the members of our Board of Directors, Dr. Peter Traber, to serve as our interim Chief Medical Officer. For his services during 2010, Dr. Traber earned fees of $32,500 ($5,000 of which was paid in January 2011) and was granted warrants for 600,000 shares of our common stock.

COMPENSATION OF NAMED EXECUTIVE OFFICERS

The following table summarizes the compensation paid to our Named Executive Officers for the fiscal years ended December 31, 2010 and 2009.

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)(1)	All Other Compensation ($)	Total ($)
Theodore D. Zucconi, Ph.D.,	2010	120,000	80,000	—	28,168(4)	228,168
Chief Executive Officer & President(2)	2009	111,988	10,000	905,736	53,737(5)	1,081,461
David Platt, Ph.D.,	2010	—	—	—	153,602(6)	153,602
Chief Executive Officer(3)	2009	14,000	—	41,605(10)	134,917(7)	190,522
Eliezer Zomer, Ph.D.,	2010	110,000	—	—	24,471(8)	134,471
Executive Vice President of Manufacturing and Product Development	2009	104,833	—	70,724	28,756(9)	204,313
Anthony Squeglia,	2010	90,000	—	51,017	21,606(11)	162,623
Chief Financial Officer	2009	86,500	—	50,517	20,688(12)	157,705
Maureen Foley,	2010	92,500	—	51,017	18,888(13)	162,405
Chief Operating Officer	2009	88,792	—	30,310	17,556(14)	136,658
Anatole Klyosov, D.Sc.	2010	110,000	—	70,149	23,545(15)	203,694
Chief Scientist	2009	100,833	—	30,310	26,806(16)	157,949

(1) These amounts represent the aggregate grant date fair value of option awards for fiscal 2010 and 2009, respectively. These amounts do not represent the actual amounts paid to or realized by the named executive officer for these awards during fiscal years 2010 and 2009. The value of as of the grant date for stock options is recognized over the number of days of service required or the achievement of certain specified milestones for the grant to become vested.

The following table includes the assumptions used to calculate the grant date fair value reported for fiscal years 2010 and 2009 on a grant by grant basis.

				Assumptions				
Name	Grant Date	Shares Granted (#)	Exercise Price ($)	Volatility (%)	Expected Life (Years)	Risk-Free Interest Rate (%)	Dividend Yield (%)	Grant Date Fair Value Per Share ($)
Theodore D. Zucconi, Ph.D.	5/21/2009	2,000,000	0.48	124	5.0	2.16	0	0.40
	3/24/2009	500,000	0.23	123	5.0	1.70	0	0.19
David Platt, Ph.D.	2/25/2009(10)	250,000	0.20	121	5.0	2.06	0	0.17
Eliezer Zomer, Ph.D.	4/21/2009	175,000	0.48	124	5.0	1.87	0	0.40
Anthony Squeglia	2/1/10	200,000	0.30	126	5.0	2.38	0	0.26
	5/21/09	50,000	0.48	124	5.0	2.16	0	0.40
	4/21/09	75,000	0.48	124	5.0	1.87	0	0.40
Maureen Foley	2/1/10	200,000	0.30	126	5.0	2.38	0	0.26
	4/21/09	75,000	0.48	124	5.0	1.87	0	0.40
Anatole Klyosov	2/1/10	275,000	0.30	126	5.0	2.38	0	0.26
	4/21/09	75,000	0.48	124	5.0	1.87	0	0.40

(2) Chief Executive Officer from February 12, 2009 to March 16, 2011.
(3) Resigned effective February 12, 2009.
(4) Includes $16,351 for local housing and travel to permanent residence and $11,817 for health insurance.

(5) Includes $44,861 for local housing and travel to permanent residence, $6,010 for health insurance and $2,866 for automobile expenses.
(6) Includes $120,000 of severance payments, $24,000 for health insurance expenses and $9,602 for automobile expenses.
(7) Includes $100,000 of severance payments, $25,157 for health insurance expenses ($20,000 paid after resignation per Dr. Platt's severance agreement), $9,600 for automobile expenses ($8,000 paid after resignation) and $160 for retirement plan contributions.
(8) Includes $20,071 for health insurance expenses and $4,400 for retirement plan contributions.
(9) Includes $24,563 for health insurance expenses and $4,193 for retirement plan contributions.
(10) Granted for service as an outgoing board member.
(11) Includes $18,006 for health insurance expenses and $3,600 for retirement plan contributions.
(12) Includes $17,228 for health insurance expenses and $3,460 for retirement plan contributions.
(13) Includes $15,188 for health insurance expenses and $3,700 for retirement plan contributions.
(14) Includes $14,004 for health insurance expenses and $3,552 for retirement plan contributions.
(15) Includes $19,145 for health insurance expenses and $4,400 for retirement plan contributions.
(16) Includes $22,773 for health insurance expenses and $4,033 for retirement plan contributions.

Narrative Disclosure to Summary Compensation Table

In order to conserve cash, the Named Executive Officers and certain other key employees voluntarily reduced their cash salaries in 2010 and 2009.

Material Terms of Employment Contracts of Named Executive Officers

Theodore D. Zucconi, PhD., Former Chief Executive Officer and President

In connection with the sale of our Series B preferred stock to the 10X Fund, Dr. Zucconi was appointed as our Chief Executive Officer and President effective February 12, 2009, serving in that position through March 16, 2011. Peter G. Traber, M.D. became our Chief Executive Officer and President on March 17, 2011. As of the date of this prospectus we have not entered into a definitive employment agreement with him.

On March 31, 2011, we entered into a Separation Agreement with Dr. Zucconi which supersedes his prior employment agreement described below. Under the separation agreement, Dr. Zucconi shall serve as a consultant, with the title Director of Business Development, in connection with such matters as we may request, including the program for approval, marketing and sale of our DAVANAT® product in South American or Latin American countries. The separation agreement provides for a consultancy term ending between November 30, 2011 and March 31, 2012 at a monthly rate of $13,333 and terminates all stock options that had not vested under his prior employment agreement. The separation agreement entitles Dr. Zucconi to a grant of 300,000 stock options exercisable for seven years which vest as to 100,000 shares each upon approval milestones in up to three South American countries achieved during his consultancy; a cash bonus equal to 1% of the amount received by June 30, 2012 from (i) actual receipts of gross sales of DAVANAT® in South and Latin American countries and (ii) licensing fees paid in connection with agreements to market DAVANAT® in such countries other than Colombia; and health and dental coverage for up to 24 months. The separation agreement also contains mutual general releases of Dr. Zucconi and Pro-Pharmaceuticals and their respective related entities and persons.

On May 21, 2009, we entered into an employment agreement with Dr Zucconi (the "Agreement") for a term ending May 31, 2011. The Agreement provides for an annual salary of $260,000, retroactive to February 12, 2009, which may be adjusted proportionately to the adjustments for other executives, provided that any reductions of 2009 compensation shall be paid no later than the first calendar quarter of 2010. Due to cash conservation efforts, Dr. Zucconi agreed to work for a base monthly salary of $10,000 in 2009. On December 31, 2009, Dr. Zucconi and the Company agreed that we owe him no unpaid 2009 salary except for accrued vacation. As incentives, Dr. Zucconi is entitled to grants of up to 2,000,000 stock options, which at his election may be

incentive stock options or non-qualified stock options, to purchase shares of our common stock as follows: (i) 400,000 as of the effective date of the Agreement, (ii) 150,000 with a vesting date of December 31, 2009; (iii) 200,000 with a vesting date of December 31, 2010; and upon achieving the following milestones: (a) 100,000 after the effective date of an investigational new drug application by the U.S. Food and Drug Administration ("FDA"), e.g., for fibrosis or anti-hypoxia, filed by the Company, a partner, an agent or subsidiary; (b) 300,000 for any FDA approval of marketing and sales of DAVANAT®; (c) 100,000 for each of first three agreements to sell/distribute a product; (d) 150,000 for the initiation of sales of DAVANAT® anywhere in the world; (e) 150,000 for the initiation of sales of DAVANAT® specifically in the United States; and (f) 250,000 following the first calendar quarter in which we achieve profitability. The stock options are exercisable for seven years whether or not Dr. Zucconi is then employed by us, are priced on the date of approval of this agreement, shall vest as indicated and contain a "cashless" exercise provision. Dr. Zucconi may elect to take stock instead of stock options.

The Agreement provides that Dr. Zucconi shall be entitled to cash bonus payments as follows: (i) $100,000 of which $20,000 is paid when an additional $1 million is raised and $40,000 when each additional $1 million is received until the total is paid; (ii) 2% of financing introduced from sources identified by Dr. Zucconi and not from sources, or their successors, previously identified by us or 10X Capital Management; and (iii) 1% of the upfront fees and milestone payments in the event a partnership or joint venture is formed to sell or distribute a Company drug or reached with another company with upfront fees and milestone payments. In 2009, Dr. Zucconi received $20,000 cash bonus.

The Agreement entitles Dr. Zucconi to: (i) an automobile allowance of $500 per month; (ii) use of an apartment within reasonable commuting distance of our principal offices, and up to $20,000 per year additional temporary living costs; (iii) fourteen round trip single passenger airline tickets (by coach) per year between Massachusetts and Phoenix, Arizona; (iv) participation in our 401(k) plan with an employer match; and (v) medical insurance through us or reimbursement for premiums paid by Dr. Zucconi.

Eliezer Zomer, Ph.D., Executive Vice President of Manufacturing and Product Development

On March 31, 2011, we entered into an Employment Agreement with Dr. Zomer for a one-year term. Under this agreement, Dr. Zomer is entitled to a base salary of $170,000 and participation in our employee benefit plans. If Dr. Zomer terminates his employment for "good reason," as defined in the agreement, he is entitled to salary and benefits through the end of the term, but not if he voluntarily terminates his employment without "good reason." The agreement contains non-competition, confidentiality, assignment of inventions, and non-solicitation provisions.

Anthony Squeglia, Chief Financial Officer

We entered into an Amended and Restated Employment agreement with Mr. Squeglia in December 2007 under which he was entitled to receive an annual salary of $180,000 and participate in company employee benefit plans, and was awarded 20,000 incentive stock options, all of which have vested. On March 8, 2011, we entered into an Amended Employment Agreement with Mr. Squeglia which supersedes his prior employment agreement. Under this Agreement, Mr. Squeglia is engaged for a one-year term ending March 6, 2012 (the "Term") at a base salary of $150,000 and is entitled to participate in the Company's standard employee benefits plan and vacation. If Mr. Squeglia is terminated by the Company without "cause" as defined in the Agreement, or terminates his employment for "good reason," as defined in the Agreement, he is entitled to all compensation and benefits through the end of the Term and a severance comprised of six months base salary and continued employee benefits. If terminated for cause, he is entitled to six months base salary. The Agreement also provides for a $60,000 signing bonus, a $50,000 lump sum payment and $25,000 transition bonus payment payable on or before stated dates even if Mr. Squeglia is terminated for any reason. The Agreement requires Mr. Squeglia to assign intellectual property to the Company and contains non-competition, non-solicitation and confidentiality provisions which continue after employment.

Maureen Foley, Chief Operating Officer

We entered into an employment agreement with Ms Foley dated January 19, 2009, under which she was entitled to receive an annual salary of $185,000 per year and participate in company employee benefit plans. On March 8, 2011, we entered into an Amended Employment Agreement with her which supersedes her prior employment agreement. Under this Agreement, Ms. Foley is engaged for a one-year term ending March 6, 2012 (the "Term") at a base salary of $150,000 and is entitled to participate in the Company's standard employee benefits plan, vacation and up to 40 days personal time off in respect of prior service to the Company. Following the Term, Ms. Foley's employment continues for successive 30-day periods unless terminated by the Company with prior notice. If Ms Foley is terminated by the Company, without "cause" as defined in the Agreement, or terminates her employment for "good reason," as defined in the Agreement, she is entitled to all compensation and benefits through the end of the Term and a severance comprised of six months base salary and continued employee benefits. If terminated for cause, she is entitled to six months base salary. The Agreement also provides for a $60,000 signing bonus, a $50,000 lump sum payment and $25,000 transition bonus payment payable by stated dates even if Ms. Foley is terminated for any reason. The Foley Agreement requires Ms. Foley to assign intellectual property to the Company and contains non-competition, non-solicitation and confidentiality provisions which continue after employment.

Anatole Klyosov, Chief Scientist

We entered into an employment agreement with Dr. Klyosov dated January 3, 2006, under which he was entitled to receive an annual salary of $200,000 and participate in company employee benefit plans. That agreement was superseded on March 31, 2011, when we entered into an Amended Employment Agreement with Dr. Klyosov for a one-year term. Under this agreement, Dr. Klyosov is entitled to a base salary of $170,000, participation in our employee benefit plans and a grant of 200,000 stock options that vest over one year and are exercisable for seven years at $1.04 per share. If Dr. Klyosov terminates his employment for "good reason," as defined in the agreement, he is entitled to salary and benefits through the end of the term, but not if he voluntarily terminates his employment without "good reason." The agreement contains non-competition, confidentiality, assignment of inventions, and non-solicitation provisions. We and Dr. Klyosov also entered into a mutual release of any claims related to his prior employment or employment agreement.

Outstanding Equity Awards at Fiscal Year-End 2010

The following table provides information with respect to outstanding stock options held by the officers named in the Summary Compensation Table as of December 31, 2010.

		Stock Option Awards			
Name	Option Grant Date	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Un-exercisable	Option Exercise Price Per Share ($)	Option Expiration Date
Theodore D. Zucconi, Ph.D.	12/09/2007	200,000	—	0.70	12/09/2012
	04/10/2008	150,000	—	0.44	04/10/2013
	03/24/2009	468,750(1)	31,250(1)	0.23	03/24/2014
	05/21/2009	850,000(2)	1,150,000(2)	0.48	05/21/2016
Eliezer Zomer, Ph.D.	11/14/2002	120,000	—	3.50	11/14/2012
	09/02/2003	425,000	—	4.05	09/02/2013
	12/21/2004	75,000	—	1.90	12/21/2014
	03/09/2006	50,000	—	3.75	03/09/2011
	03/08/2007	100,000	—	1.01	03/08/2012
	04/10/2008	150,000	—	0.44	04/10/2013
	04/21/2009	175,000	—	0.48	04/21/2014
Anthony Squeglia	04/10/2003	50,000	—	2.92	04/10/2013
	09/02/2003	65,000	—	4.05	09/02/2013
	12/21/2004	50,000	—	1.90	12/21/2014
	03/09/2006	50,000	—	3.75	03/09/2011
	03/08/2007	100,000	—	1.01	03/08/2012
	12/12/2007	20,000	—	0.63	12/12/2012
	04/10/2008	185,000	—	0.44	04/10/2013
	04/21/2009	75,000	—	0.48	04/21/2014
	05/21/2009	50,000	—	0.48	05/21/2014
	02/01/2010	200,000	—	0.30	02/01/2015
Maureen Foley	12/14/2001	20,000	—	3.50	12/14/2011
	11/14/2002	100,000	—	3.50	11/14/2012
	09/02/2003	650,000	—	4.05	09/02/2013
	12/21/2004	75,000	—	1.90	12/21/2014
	03/09/2006	50,000	—	3.75	03/09/2011
	03/08/2007	100,000	—	1.01	03/08/2012
	04/10/2008	150,000	—	0.44	04/10/2013
	04/21/2009	75,000	—	0.48	04/21/2014
	02/01/2010	200,000	—	0.30	02/01/2015
Anatole Klyosov	03/09/2006	50,000	—	3.75	03/09/2011
	03/08/2007	100,000	—	1.01	03/08/2012
	04/10/2008	150,000	—	0.44	04/10/2013
	04/21/2009	75,000	—	0.48	04/21/2014
	02/01/2010	275,000	—	0.30	02/01/2015

(1) Options vest at the rate of 50% after one year, 25% on 6/24/2010, 12.5% on 9/24/2010, 6.25% on 12/24/2010 and 6.25% on 3/24/2011. The grant date fair value of un-exercisable options is $5,313.

(2) Options vest at the rate of 400,000 upon grant, 150,000 on 12/31/2009, 200,000 on 12/31/2010 and 1,250,000 upon the achievement of certain defined milestones. During 2010, 100,000 of the milestone warrants vested. The grant date fair value of un-exercisable options is $460,000.

The exercise price of the options is set at the closing price of our stock on the date of grant. Grants of options are recommended by the Compensation Committee and adopted by the Board of Directors.

DIRECTOR COMPENSATION

The following table details the total compensation earned by our non-employee directors in fiscal 2010.

2010 Director Compensation

Name(1)	Fees Earned or Paid in Cash ($)	Option Awards ($)(2)(4)	Warrant Awards ($)(2)	All Other Compensation ($)(3)	Total ($)
Gilbert F. Amelio, Ph.D.	—	—	—	—	—
James C. Czirr	146,000(5)	255,088	—	—	401,088
Rod D. Martin	—	127,544	—	—	127,544
S. Colin Neill	—	—	—	—	—
Steven Prelack	60,000(6)	—	—	—	60,000
Jerald K. Rome	—	—	—	—	—
Peter Traber, M.D.	32,500(7)	—	365,233(8)	—	397,733
Arthur R. Greenberg	—	—	—	—	—

(1) Theodore Zucconi was the only director during 2010 who was also an employee of Pro-Pharmaceuticals. He did not receive any compensation in his capacity as a director.

(2) These amounts represent the aggregate grant date fair value of awards for grants of options or warrants to each listed director in fiscal 2010. These amounts do not represent the actual amounts paid to or realized by the directors during fiscal 2010. The value as of the grant date for stock options is recognized over the period of service required for the stock awards to vest in full.

(3) Reimbursements for travel are not included in these amounts.

(4) The aggregate number of shares subject to option awards held by each director (representing unexercised options awards – both exercisable and un-exercisable) at December 31, 2010 is as follows:

Name	Number of Shares Subject to Option Awards Held as of December 31, 2010	Number of Shares Subject to Warrant Awards Held as of December 31, 2010	Number of Shares of Restricted Stock Held as of December 31, 2010
Gilbert F. Amelio, Ph.D.	—	—	31,250
James C. Czirr	1,000,000	—	31,250
Rod D. Martin	500,000	—	31,250
S. Colin Neill	511,500	—	—
Steven Prelack	525,750	—	—
Jerald K. Rome	563,000	—	—
Peter Traber, M.D.	—	600,000(8)	31,250
Arthur R. Greenberg	—	—	31,250
TOTAL	3,100,250	600,000	156,250

(5) Compensation paid to Mr. Czirr was for his service as Chairman of the Company.

(6) Compensation paid to Mr. Prelack was for his service as Audit Committee Chairman.

(7) Compensation paid to Mr. Traber was for his service as our interim Chief Medical Officer. Of the $32,500 of compensation earned in 2010, $5,000 was paid in January 2011.

(8) Warrants granted to Dr. Traber for his service as our interim Chief Medical Officer. The warrants vest as follows: 150,000 on grant, 150,000 after one year and 300,000 upon the achievement of certain milestones.

The following table includes the assumptions used to calculate the fiscal 2010 grant date fair value on a grant by grant basis for option and warrant awards for our directors.

				Assumptions				
Name	Grant Date	Shares Granted (#)	Exercise Price ($)	Volatility (%)	Expected Life (Years)	Risk-Free Interest Rate (%)	Dividend Yield (%)	Grant Date Fair Value Per Share ($)
James C. Czirr	02/01/2010	1,000,000	0.30	126	5.0	2.38	0	0.26
Rod D. Martin	02/01/2010	500,000	0.30	126	5.0	2.38	0	0.26
Peter G. Traber	06/15/2010	600,000	0.71	129	5.0	1.8	0	0.61

For a more detailed description of the assumptions used for purposes of determining grant date fair value, see Note 10 to the Financial Statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Policies and Estimates – Stock-Based Compensation," included in Pro-Pharmaceuticals Annual Report on Form 10-K for the year ended December 31, 2010.

We also reimburse our directors for travel and other related expenses.

After the end of fiscal 2010, we announced that our Board of Directors appointed Peter G. Traber, M.D., President and Chief Executive Officer effective March 17, 2011. In conjunction with the appointment of Dr. Traber, our Board of Directors on March 7, 2011 granted Dr. Traber 5,000,000 10-year stock options, at an exercise price of $1.16 per share, which vest as to 750,000 options on the grant date, 625,000 options on the first and second anniversaries of the grant date, 500,000 options on the third and fourth anniversaries of the grant date and 1,000,000 on the Fifth anniversary of the grant date. The remaining 1,000,000 options will vest upon the achievement of certain milestones. With respect to options that vest on anniversaries, exercise rights are accelerated upon achievement of certain milestones.

Equity Award Policy for Non-Employee Directors

Prior to 2009, as provided for in our 2003 Non-employee Directors Stock Incentive Plan, each non-employee director received a grant of 500 non-qualified stock options for each meeting of our Board, and each meeting of a standing committee of the Board, that such director attended during a year of service.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of December 31, 2010 about the securities issued, or authorized for future issuance, under our equity compensation plans, consisting of our 2001 Stock Incentive Plan, our 2003 Non-Employee Director Stock Option Plan, and our 2009 Incentive Compensation Plan.

Plan Category	Number of Securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options,	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	11,430,000	$ 1.07	1,286,000
Equity compensation plans not approved by security holders	364,250	$ 3.23	—
Total	11,794,250	$ 1.07	1,286,000

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of March 15, 2011, certain information concerning the beneficial ownership of our common stock, our Series A preferred stock and our Series B preferred stock by (i) each person known by us to own beneficially five per cent (5%) or more of the outstanding shares of each class, (ii) each of our directors and named executive officers, and (iii) all of our executive officers and directors as a group. The table also sets forth, in its final column, the combined voting power of the voting securities on all matters presented to the stockholders for their approval at the Annual Meeting, except for such separate class votes as are required by law.

The number of shares beneficially owned by each 5% stockholder, director or executive officer is determined under the rules of the Securities and Exchange Commission, or SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under those rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power and also any shares that the individual or entity has the right to acquire within 60 days after March 15, 2011 through the exercise of any stock option, warrant or other right, or the conversion of any security. Unless otherwise indicated, each person or entity has sole voting and investment power (or shares such power with his or her spouse) with respect to the shares set forth in the following table. The inclusion in the table below of any shares deemed beneficially owned does not constitute an admission of beneficial ownership of those shares.

Name and Address(1)	Shares of Common Stock Beneficially Owned(2)	Percent of Common Stock(3)	Shares of Series A Preferred Stock Beneficially Owned	Percent of Series A Preferred Stock(4)	Shares of Series B Preferred Stock Beneficially Owned(5)	Percent of Series B Preferred Stock	Combined Percent of Voting Securities(6)
5% Stockholders							
James C. Czirr	56,384,916(7)	48.2%	—	—	3,000,000	100%	6.1%(8)
10X Fund, L.P., c/o 10X Capital Management, LLC 1099 Forest Lake Terrace Niceville, FL 32578	50,101,748(9)	42.5%	—	—	3,000,000	100%	17.4%
Rod D. Martin, J.D.	51,120,674(10)	44.0%	—	—	3,000,000	100%	*(8)
James C. Czirr Trust, c/o James C. Czirr 425 Janish Drive, Sandpoint, ID 83864	340,700(14)	*	100,000	6.3%	—	—	*
David Smith 34 Shorehaven Road E. Norwalk, CT 06855	—	—	175,000	11.0%	—	—	*
Fivex LLC c/o David Smith 34 Shorehaven Road E. Norwalk, CT 06855	—	—	100,000(13)	6.3%	—	—	*

Name and Address(1)	Shares of Common Stock Beneficially Owned(2)	Percent of Common Stock(3)	Shares of Series A Preferred Stock Beneficially Owned	Percent of Series A Preferred Stock(4)	Shares of Series B Preferred Stock Beneficially Owned(5)	Percent of Series B Preferred Stock	Combined Percent of Voting Securities(6)
Directors and Named Executive Officers							
Gilbert F. Amelio, Ph.D.	507,500	*	—	—	—	—	*
James C. Czirr	56,384,916(7)	48.2%	100,000	6.3%	3,000,000	100%	6.1%(8)
Rod D. Martin, J.D.	51,120,674(10)	44.0%	—	—	3,000,000	100%	*(8)
Arthur R. Greenberg	500,000	*	—	—	—	—	*
S. Colin Neill	511,500	*	—	—	—	—	*
Steven Prelack	522,250	*	—	—	—	—	*
Jerald K. Rome	713,844	1.0%	—	—	—	—	*
Peter G. Traber, M.D.	1,400,000(11)	2.0%	—	—	—	—	*
Paul Pressler	27,000	*	—	—	—	—	*
Theodore D. Zucconi, Ph.D.	1,796,343	2.6%	—	—	—	—	*
Eliezer Zomer, Ph.D.	1,045,000	1.5%	—	—	—	—	*
Anthony D. Squeglia	795,000	1.2%	—	—	—	—	*
Maureen Foley	1,375,000	2.0%	—	—	—	—	*
All executive officers and directors as a group (12 persons)	66,597,279(12)	53.3%	100,000	6.3%	3,000,000	100%	26.3%

* Less than 1%.

(1) Except as otherwise indicated in the table, the address for each named person is c/o Pro-Pharmaceuticals, Inc., 7 Wells Avenue, Suite 34, Newton, Massachusetts 02459.

(2) Includes the following number of shares of our common stock issuable upon exercise of outstanding stock options granted to our named executive officers and directors that are exercisable within 60 days after March 15, 2011,

Directors and Named Executive Officers	Options Exercisable Within 60 Days
Mr. Czirr	1,000,000
Mr. Martin	500,000
Mr. Neill	511,500
Mr. Prelack	522,250
Mr. Rome	554,500
Dr. Traber	750,000
Dr. Zucconi	1,700,000
Dr. Zomer	1,045,000
Mr. Squeglia	795,000
Ms. Foley	1,370,000
All executive officers and directors as a group	8,748,250

(3) For each named person and group included in this table, percentage ownership of our common stock is calculated by dividing the number of shares of our common stock beneficially owned by such person or group by the sum of (i) 67,666,627 shares of our common stock outstanding as of March 15, 2011 and (ii) the number of shares of our common stock that such person has the right to acquire within 60 days after March 15, 2011, which does not include any shares of common stock that may be issued in payment of dividends to holders of our preferred stock during that period.

(4) For each named person and group included in this table, percentage ownership of our Series A preferred stock is based on 1,592,500 shares of Series A preferred stock outstanding as of March 15, 2011.

(5) Includes (i) 900,000 shares of Series B-1 preferred stock issued and outstanding and (ii) 2,100,000 shares of Series B-2 preferred stock issued and outstanding.

(6) Represents the combined voting power of the voting securities (comprised of the aggregate of the shares of our common stock, Series A preferred stock voting on an as-converted basis with the common stock, and Series B-1 preferred stock and Series B-2 preferred stock voting on an as-converted basis with the common stock) on all matters presented to the stockholders for their approval at the Annual Meeting (except for such separate class votes as are required by law or the terms of a class or series of securities) and excludes shares of common stock underlying outstanding options and warrants that have not been exercised as of the Record Date. The Series C preferred stock does not have voting rights, and as of March 15, 2011, no shares of Series C preferred stock had been converted to common stock.

(7) Includes (i) 100,000 shares of our common stock issuable upon conversion of Series A preferred stock; (ii) 200,000 shares of our common stock underlying warrants to purchase shares of our common stock; (iii) 3,600,000 shares of our common stock issuable upon conversion of 900,000 shares of Series B-1 preferred stock; (iv) 8,400,000 shares of our common stock issuable upon conversion of 2,100,000 shares of Series B-2 preferred stock; (v) warrants to purchase 36,000,000 shares of our common stock; and (vi) 2,101,748 shares of common stock issued as dividend payments, as to which Mr. Czirr, in his capacity as a managing member of 10X Capital Management Fund, LLC, a Florida limited liability company and general partner of 10X Fund, which we refer to as 10X Management, has shared voting and investment power, and disclaims beneficial ownership.

(8) Excludes, for purposes of this column, shares of common stock underlying the Series B-1 preferred stock and Series B-2 preferred stock as to which such person has shared voting power but which will be voted by 10X Fund.

(9) Includes (i) 3,600,000 shares of our common stock issuable upon conversion of 900,000 shares of Series B-1 preferred stock; (ii) 8,400,000 shares of our common stock issuable upon conversion of 2,100,000 shares of Series B-2 preferred stock; (iii) warrants to purchase 36,000,000 shares of our common stock; and (iv) 2,101,748 shares of common stock issued as dividend payments, as to which Mr. Martin, in his capacity as a managing member of 10X Management, its general partner, has shared voting and investment power, and disclaims beneficial ownership. Each of Mr. Czirr and Mr. Martin, in his capacity as a managing member of 10X Management, the general partner of 10X Fund, has voting and investment power, and disclaims beneficial ownership, of these securities.

(10) Includes (i) 3,600,000 shares of our common stock issuable upon conversion of 900,000 shares of Series B-1 preferred stock; (ii) 8,400,000 shares of our common stock issuable upon conversion of 2,100,000 shares of Series B-2 preferred stock; (iii) warrants to purchase 36,000,000 shares of our common stock; and (iv) 2,101,748 shares of common stock issued as dividend payments, all of which are held of record by 10X Fund as to which Mr. Martin, in his capacity as a managing member of 10X Management, has shared voting and investment power, and disclaims beneficial ownership.

(11) Includes warrants to purchase 150,000 shares of our common stock granted to Dr. Traber in accordance with his consulting agreement to serve as our interim Chief Medical Officer during 2010.

(12) Includes (i) 48,000,000 shares of our common stock underlying the Series B preferred stock and related warrants and (ii) 2,101,748 shares of common stock issued as dividends as to which Messrs. Czirr and Martin share voting and investment control but are counted one time for purposes of this total. For additional information about the beneficial ownership of our capital stock by Messrs. Czirr and Martin, see notes 7 and 10 respectively.

(13) Mr. Smith is the manager of Fivex LLC, a Connecticut limited liability company, and may be deemed to have voting and investment control over, but disclaims beneficial ownership of, the shares of Series A preferred stock.

(14) Includes (i) 100,000 shares of our common stock issuable upon conversion of Series A preferred stock; and (ii) 200,000 shares of our common stock underlying warrants to purchase shares of our common stock.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus has been passed upon for Pro-Pharmaceuticals, Inc. by McCarter & English LLP of Boston, Massachusetts.

EXPERTS

The consolidated financial statements of the Company as of and for the year ended December 31, 2010 and for the period from inception (July 10, 2000) to December 31, 2010, appearing in this Prospectus and Registration Statement, have been audited by McGladrey & Pullen, LLP, an independent registered public accounting firm, as stated in their report appearing elsewhere herein, and are included in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of the Company as of and for the period from inception (July 10, 2000) to December 31, 2009, appearing in this Prospectus and Registration Statement, have been audited by Caturano and Company, Inc., an independent registered public accounting firm, as stated in their report appearing elsewhere herein, (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the Company's ability to continue as a going concern) and are included in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the Public Reference Room (Room 1580), 100 F Street, N.E., Washington, D.C. 20549. You may also obtain information on the operations of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a website (www.sec.gov) that contains the reports, proxy and information statements, and other information that we file electronically with the SEC.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and the securities, including exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the above address or from the SEC's Internet site.

Our internet address is www.pro-pharmaceuticals.com. We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this document. Our web address is included in this document as an inactive textual reference only.

Table of Contents

Pro-Pharmaceuticals, Inc.
(A Development Stage Company)

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Pro-Pharmaceuticals, Inc.
Newton, Massachusetts

We have audited the accompanying consolidated balance sheet of Pro-Pharmaceuticals, Inc. and subsidiaries (a development stage company) (the "Company") as of December 31, 2010, and the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' deficit, and cash flows for the year then ended, and for the period from inception (July 10, 2000) to December 31, 2010. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements for the period from inception (July 10, 2000) to December 31, 2009 were audited by other auditors and our opinion, insofar as it rates to cumulative amounts included for such prior periods, is based solely on the report of other such auditors.

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

In our opinion, based on our audit and the report of other auditors, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2010, and the results of their operations and their cash flows for the year then ended, and for the period from inception (July 10, 2000) to December 31, 2010 in conformity with accounting principles generally accepted in the United States of America.

/s/ McGladrey & Pullen, LLP

Boston, Massachusetts
March 15, 2011

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Pro-Pharmaceuticals, Inc.
Newton, Massachusetts

We have audited the accompanying consolidated balance sheet of Pro-Pharmaceuticals, Inc. and subsidiaries (a development stage company) (the "Company") as of December 31, 2009, and the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' deficit, and cash flows for the year then ended, and for the period from inception (July 10, 2000) to December 31, 2009 (not presented herein). 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 audit.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2009, and the consolidated results of their operations and their cash flows for the year then ended, and for the period from inception (July 10, 2000) to December 31, 2009 in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company's recurring losses from operations and stockholders' deficit raise substantial doubt about its ability to continue as a going concern. Management's plans concerning these matters are also discussed in Note 1 to the consolidated financial statements. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

As discussed in Note 8 to the financial statements, the Company changed the manner in which it accounts for certain warrants effective January 1, 2009.

/s/ Caturano and Company, P.C.

Boston, Massachusetts
March 12, 2010

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED BALANCE SHEETS

	December 31, 2010	December 31, 2009
	(in thousands)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 5,891	$ 251
Grant receivable	234	—
Prepaid expenses and other current assets	70	53
Total current assets	6,195	304
Property and equipment, net	7	17
Restricted cash	59	59
Intangible assets, net	39	56
Total assets	$ 6,300	$ 436
LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$ 125	$ 221
Accrued expenses	537	779
Accrued dividends payable	48	52
Deferred revenue	200	—
Warrant liabilities	861	—
Total current liabilities	1,771	1,052
Warrant liabilities	—	1,633
Other long-term liabilities	12	304
Total liabilities	1,783	2,989
Commitments and contingencies (Note 12)		
Series B-1 12% redeemable convertible preferred stock; 900,000 shares authorized, issued and outstanding at December 31, 2010 and 2009, redemption value: $1,800,000, liquidation value: $1,800,000 at December 31, 2010	1,664	1,270
Series B-2 12% redeemable convertible preferred stock; 2,100,000 shares authorized at December 31, 2010 and 2009, 2,100,000 and 1,330,000 issued and outstanding at December 31, 2010 and 2009, respectively, redemption value: $4,200,000, liquidation value of $4,200,000 at December 31, 2010	2,474	644
Series C super dividend convertible preferred stock; 1,000 shares authorized, 212 issued and outstanding at December 31, 2010, redemption value: $4,240,000, liquidation value: $2,120,000 at December 31, 2010	2,073	—
Stockholders' deficit:		
Undesignated stock, $0.01 par value; 20,000,0000 shares authorized at December 31, 2010 and 2009, 8,001,000 and 8,000,000 designated at December 31, 2010 and 2009, respectively		
Series A 12% convertible preferred stock; 5,000,000 shares authorized, 1,592,500 and 1,642,500 issued and outstanding at December 31, 2010 and 2009, respectively	644	664
Common stock, $0.001 par value; 300,000,000 shares authorized at December 31, 2010 and 2009, 63,909,155 and 51,742,090 issued and outstanding at December 31, 2010 and 2009, respectively	64	52
Additional paid-in capital	54,022	42,532
Deficit accumulated during the development stage	(56,424)	(47,715)
Total stockholders' deficit	(1,694)	(4,467)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 6,300	$ 436

See notes to consolidated financial statements.

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		Cumulative from inception (July 10, 2000) to December 31,
	2010	2009	2010
	(in thousands, except per share amounts)		
Operating expenses:			
Research and development	$ 1,066	$ 1,110	$ 19,531
General and administrative	3,817	4,983	34,807
Total operating expenses	4,883	6,093	54,338
Total operating loss	(4,883)	(6,093)	(54,338)
Other income (expense):			
Interest income	6	3	776
Interest expense	—	—	(4,451)
Change in fair value of convertible debt instrument	—	—	(3,426)
Change in fair value of warrant liabilities	(1,241)	(1,374)	9,546
Other income	489	2	491
Total other income (expense)	(746)	(1,369)	2,936
Net loss	$ (5,629)	$ (7,462)	$ (51,402)
Preferred stock dividends	(902)	(550)	(1,691)
Preferred stock accretion	(2,178)	(1,407)	(3,585)
Net loss applicable to common stockholders	$ (8,709)	$ (9,419)	$ (56,678)
Basic and diluted net loss per share	$ (0.15)	$ (0.20)	
Shares used in computing basic and diluted net loss per share	56,301	48,274	

See notes to consolidated financial statements.

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT
Cumulative Period From Inception (July 10, 2000) to December 31, 2010
(in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Issuance of founders shares July 10, 2000	**—**	**$ —**	**—**	**$ —**	**—**	**$ —**	**—**	**$ —**	**12,354,670**	**$ 12**	**$ (3)**	**$ —**	**$ 9**
Beneficial conversion feature and rights to common stock embedded in convertible note in 2000											222		222
Issuance of common stock and beneficial conversion feature related to convertible note in 2001									660,321	1	1,035		1,036
Issuance of common stock in connection with reverse merger of Pro-Pharmaceuticals-NV in 2001									1,221,890	1	106		107
Conversion of notes payable and accrued interest to common stock in 2001									598,229	1	1,125		1,126
Issuance of warrants to induce conversion of notes payable in 2001											503		503
Issuance of common stock and warrants (net of issuance costs of $17) in 2001									689,300	1	2,220		2,221
Issuance of common stock (net of issuance costs of $49) in 2002									185,999		602		602

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
Cumulative Period From Inception (July 10, 2000) to December 31, 2010
(in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Issuance of common stock related to 2002 private placement (net of issuance costs of $212)									3,223,360	3	2,858		2,861
Conversion of notes payable and accrued interest to common stock									105,877		290		290
Issuance of warrants to purchase common stock in consideration for placement of convertible notes payable in 2002											236		236
Issuance of common stock to investors in 2002 private placement (net of issuance costs of $18)									1,088,000	1	1,069		1,070
Issuance of common stock to consultants for services related to 2002 private placement									12,250		12		12
Receipt of subscription receivable											150		150
Conversion of accrued expenses to common stock and options									201,704		302		302
Issuance of common stock to investors in May, 2003 private placement (net of issuance costs of $128)									2,399,500	3	4,407		4,410
Fair value of common stock warrants issued to placement agents in May, 2003 private placement											261		261

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
Cumulative Period From Inception (July 10, 2000) to December 31, 2010
(in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Issuance of common stock to investors in October, 2003 private placement (net of issuance costs of $559)									1,314,571	1	1,318		1,319
Cashless exercise of employee stock options									16,629		74		74
Issuance of common stock to investors in April, 2004 private placement (net of issuance costs of $466))									1,236,111	1	1,897		1,898
Issuance of common stock to investors in August, 2004 private placement (net of issuance costs of $485)									2,000,000	2	488		490
Common stock issued in 2006 related to convertible debenture conversions									476,202	1	1,744		1,745
Common stock issued in 2006 and 2007 related to convertible debenture redemptions									7,367,831	7	3,941		3,948
Common stock issued in 2007 related to convertible debenture waiver and exchange agreement									5,205,348	5	5,325		5,330
Series A 12% Convertible Preferred Stock issued in a February 4, 2008 private placement (net of cash issuance costs of $52)							1,742,500	704					704

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
Cumulative Period From Inception (July 10, 2000) to December 31, 2010
(in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Common stock issued in a February 25, 2008 offering (net of cash issuance costs of $369)									7,500,000	8	1,036		1,044
Issuance of common stock in payment of Series A 12% Convertible Preferred Dividend									592,553		592	(640)	(48)
Issuance of Common Stock Warrants											20		20
Reclassification of Warrant Liabilities											3,193		3,193
Deferred compensation relating to issuance of stock options											455		455
Amortization of deferred compensation													—
Stock compensation expense related to fair market revaluation											157		157
Stock based compensation expense											5,624		5,624
Stock compensation related to the issuance of common shares									7,000		27		27
Cumulative effect of adoption of new accounting principle											(458)	254	(204)
Issuance of Series B-1 redeemable convertible preferred stock and warrants, net of issuance costs of $300	900,000	395									1,105		1,105

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
Cumulative Period From Inception (July 10, 2000) to December 31, 2010
(in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Accretion of Series B-1 redeemable convertible preferred stock to redemption value		1,269										(1,269)	(1,269)
Issuance of Series B-2 redeemable convertible preferred stock and warrants, net of issuance costs of $188			2,100,000	1,174							2,761		2,761
Beneficial conversion feature recognized on issuance of series B-2 redeemable convertible preferred stock				(1,016)							1,016		1,016
Issuance of Series C super dividend convertible preferred stock, net of issuance costs of $47					212	2,073							—
Accretion of Series B-2 redeemable convertible preferred stock to redemption value				1,741								(1,741)	(1,741)
Series B-1 12% redeemable convertible preferred stock dividend									861,808	1	431	(432)	—
Series B-2 12% redeemable convertible preferred stock dividend									1,239,940	1	618	(619)	—
Accretion of beneficial conversion feature for Series B-2				575								(575)	(575)

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
Cumulative Period From Inception (July 10, 2000) to December 31, 2010
(in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Issuance of restricted common stock									2,600,000	3	(3)		—
Issuance of common stock upon exercise of warrants									9,816,062	10	7,079		7,089
Issuance of common stock upon exercise of options									784,000	1	127		128
Conversion of Series A to common stock							(150,000)	(60)	150,000		60		—
Net loss since inception												(51,402)	(51,402)
Balance at December 31, 2010	**900,000**	**$1,664**	**2,100,000**	**$2,474**	**212**	**$2,073**	**1,592,500**	**$ 644**	**63,909,155**	**$ 64**	**$ 54,022**	**$ (56,424)**	**$ (1,694)**

See notes to consolidated financial statements.

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT
For the Years Ended December 31, 2010 and 2009
(amounts in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Balance at December 31, 2008	**—**	**$ —**	**—**	**$ —**	**—**	**$ —**	**1,742,500**	**$ 704**	**48,052,159**	**$ 48**	**$ 37,329**	**$ (38,550)**	**$ (469)**
Cumulative effect of adoption of new accounting principle											(458)	254	(204)
Issuance of Series B-1 redeemable convertible preferred stock and warrants, net of issuance costs of $300	900,000	395									1,105		1,105
Accretion of Series B-1 redeemable convertible preferred stock to redemption value		875										(875)	(875)
Issuance of Series B-2 redeemable convertible preferred stock and warrants, net of issuance costs of $188			1,330,000	740							1,732		1,732
Beneficial conversion feature recognized on issuance of series B-2 redeemable convertible preferred stock				(628)							628		628
Accretion of Series B-2 redeemable convertible preferred stock to redemption value				405								(405)	(405)
Series A 12% convertible preferred stock dividend									209,100		209	(209)	—

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
For the Years Ended December 31, 2010 and 2009
(amounts in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Series B-1 12% redeemable convertible preferred stock dividend									405,236	1	203	(204)	—
Series B-2 12% redeemable convertible preferred stock dividend									275,595		137	(137)	—
Accretion of beneficial conversion feature for Series B-2				127								(127)	(127)
Issuance of restricted common stock									2,500,000	3	(3)		—
Issuance of common stock upon exercise of options									200,000				—
Conversion of Series A to common stock							(100,000)	(40)	100,000		40		—
Stock-based compensation expense											1,610		1,610
Net loss												(7,462)	(7,462)
Balance at December 31, 2009	**900,000**	**$1,270**	**1,330,000**	**$ 644**	**—**	**$ —**	**1,642,500**	**$ 664**	**51,742,090**	**$ 52**	**$ 42,532**	**$ (47,715)**	**$ (4,467)**
Issuance of Series B-2 redeemable convertible preferred stock and warrants, net of issuance costs of $77			770,000	434							1,029		1,029
Beneficial conversion feature recognized on issuance of series B-2 redeemable convertible preferred stock				(388)							388		388

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)

CONSOLIDATED STATEMENT OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
For the Years Ended December 31, 2010 and 2009
(amounts in thousands except share data)

	Series B-1 12% Redeemable Convertible Preferred Stock		Series B-2 12% Redeemable Convertible Preferred Stock		Series C Super Dividend Convertible Preferred Stock		Stockholders' Deficit						
							Series A 12% Convertible Preferred Stock		Common Stock				
	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Number of Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
Accretion of Series B redeemable convertible preferred stock		394		1,336								(1,730)	(1,730)
Accretion of beneficial conversion feature for Series B-2				448								(448)	(448)
Issuance of Series C super dividend convertible preferred stock, net of issuance costs of $47					212	2,073							—
Series A 12% convertible preferred stock dividend									196,086		196	(192)	4
Series B-1 12% redeemable convertible preferred stock dividend									456,572		228	(228)	—
Series B-2 12% redeemable convertible preferred stock dividend									964,345	1	481	(482)	—
Issuance of restricted common stock									100,000				—
Conversion of Series A to common stock							(50,000)	(20)	50,000		20		—
Issuance of common stock upon exercise of warrants									9,816,062	10	7,079		7,089
Issuance of common stock upon exercise of options									584,000	1	127		128
Stock-based compensation expense											1,942		1,942

Net loss												(5,629)	(5,629)
Balance at December 31, 2010	**900,000**	**$1,664**	**2,100,000**	**$2,474**	**212**	**$2,073**	**1,592,500**	**$ 644**	**63,909,155**	**$ 64**	**$ 54,022**	**$ (56,424)**	**$ (1,694)**

See notes to consolidated financial statements.

PRO-PHARMACEUTICALS, INC.
(A Development-Stage Company)
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		Cumulative Period from Inception (July 10, 2000) to December 31, 2010
	2010	2009	
	(in thousands)		
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	$(5,629)	$ (7,462)	$ (51,402)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	12	37	537
Stock-based compensation expense	1,942	1,610	6,337
Non-cash interest expense	—	—	4,279
Change in fair value of convertible debt instrument	—	—	3,426
Change in fair value of warrant liabilities	1,241	1,374	(9,546)
Write off of intangible assets	15	155	351
Changes in operating assets and liabilities:			
Grant receivable	(234)	—	(234)
Prepaid expenses and other current assets	(17)	9	(67)
Accounts payable and accrued expenses	(140)	125	930
Other long-term liabilities	(292)	265	12
Net cash used in operating activities	(3,102)	(3,887)	(45,377)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property and equipment	—	—	(421)
Change in restricted cash	—	—	(59)
Increase in patents costs and other assets	—	—	(404)
Net cash used in investing activities	—	—	(884)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Net proceeds from issuance of common stock and warrants	—	—	28,690
Net proceeds from issuance of Series A 12% convertible preferred stock and related warrants	—	—	1,691
Net proceeds from issuance of Series B-1 12% redeemable convertible preferred stock and related warrants	—	1,548	1,548
Net proceeds from issuance of Series B-2 12% redeemable convertible preferred stock and related warrants	1,463	2,472	3,935
Net proceeds from issuance of Series C super dividend convertible preferred stock	2,073	—	2,073
Net proceeds from issuance of convertible debt instruments	—	—	10,621
Repayment of convertible debt instruments	—	—	(1,641)
Net proceeds from exercise of common stock warrants and options	5,206	—	5,226
Proceeds from (repayments of) shareholder advances	—	(200)	9
Net cash provided by financing activities	8,742	3,820	52,152
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	5,640	(67)	5,891
CASH AND CASH EQUIVALENTS, BEGINNING OF PERIOD	251	318	—
CASH AND CASH EQUIVALENTS, END OF PERIOD	$ 5,891	$ 251	$ 5,891
SUPPLEMENTAL DISCLOSURE – Cash paid for interest	$ —	$ —	$ 114
NONCASH FINANCING ACTIVITIES:			
Issuance of equity warrants in connection with equity offerings	$ 1,028	$ 2,837	$ 5,037
Conversion of accrued expenses into common stock	—	—	303
Cashless exercise of stock options	—	24	98
Conversion and redemptions of convertible notes and accrued interest into common stock	—	—	12,243
Conversion of extension costs related to convertible notes into common stock	—	—	171
Payment of preferred stock dividends in common stock	902	550	1,691
Issuance of warrants to induce conversion of notes payable	—	—	503
Issuance of stock to acquire Pro-Pharmaceuticals-NV	—	—	107

See notes to consolidated financial statements.

PRO-PHARMACEUTICALS, INC.
(A DEVELOPMENT-STAGE COMPANY)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Nature of Business and Basis of Presentation

Pro-Pharmaceuticals, Inc. (the "Company") is a development-stage company engaged in the discovery and development of Galectin-targeting therapeutics that are intended to reduce toxicity and improve the efficacy of chemotherapy drugs by combining the drugs with proprietary compounds. These compounds also may have application for drugs to treat other diseases and chronic health conditions.

The Company is devoting substantially all of its efforts toward product research and development and raising capital. In May 2008, the Company submitted a Drug Master File ("DMF") for the Company's lead product DAVANAT® to the FDA. The DMF contains confidential detailed information in support of a New Drug Application ("NDA") about facilities, processes or articles used in the manufacturing, processing, packaging, and storing or stability of drugs.

In September 2008, the Company submitted a clinical and pre-clinical package to the Food and Drug Administration ("FDA") in support of the Company's DAVANAT® NDA. The FDA reported to the Company in its minutes for the December 2008 meeting that the Company will be required to conduct a Phase III trial to demonstrate superiority to the best standard of care for colorectal cancer patients.

On December 17, 2010, Company executives met with officials from the FDA to present its Phase III clinical development program for DAVANAT®. Agreement was reached on the design of pivotal, randomized, controlled, and blinded Phase III clinical trials of DAVANAT® co-administered with standard chemotherapy for second line treatment of patients with metastatic colorectal cancer.

As shown in the consolidated financial statements, the Company incurred cumulative net losses applicable to common stockholders of $56.7 million for the cumulative period from inception (July 10, 2000) through December 31, 2010. The Company's net losses have resulted principally from costs associated with (i) research and development expenses, including clinical trial costs, (ii) general and administrative activities and (iii) the Company's financing transactions including interest, dividend payments, and the costs related to fair value accounting for the Company's convertible debt instruments. As a result of planned expenditures for future research, discovery, development and commercialization activities and potential legal cost to protect its intellectual property, the Company expects to incur additional losses and use additional cash in its operations for the foreseeable future. Through December 31, 2010, the Company had raised a net total of $52.2 million in capital through sale and issuance of common stock, common stock purchase warrants, convertible preferred stock and debt securities in public and private offerings. From inception (July 10, 2000) through December 31, 2010, the Company used cash of $45.4 million in its operations.

At December 31, 2010, the Company had $5,891,000 of unrestricted cash and cash equivalents available to fund future operations. Subsequent to December 31, 2010, the Company issued 3,757,472 shares of common stock for the exercise of common stock warrants and options, resulting in net cash proceeds of $2,209,000 and 13 shares of Series C preferred stock for net cash proceeds of $130,000. Subsequent to year end, the Company also received $235,000 due under a research grant (a Qualifying Therapeutic Discovery Project ("QTDP") Program). The Company believes that with the cash and cash equivalents on hand at December 31, 2010 and the funds received subsequent to December 31, 2010, there is sufficient cash to fund operations into the second half of 2012. The Company is actively seeking to raise additional capital. If the Company is unsuccessful in raising additional capital or is unsuccessful in bringing its products to market before the end of the second quarter of 2012, the Company may be required to cease operations or seek bankruptcy protection.

On January 9, 2009, the Company was delisted from the NYSE Alternext US ("Exchange"), formerly the American Stock Exchange, due to non-compliance with the Exchange minimum shareholders' equity requirements. On January 21, 2009, the Company began trading on the Over-the-Counter Bulletin Board ("OTCBB") under the symbol PRWP.OB.

The Company is subject to a number of risks similar to those of other development-stage companies, including dependence on key individuals, uncertainty of product development and generation of revenues, dependence on outside sources of capital, risks associated with clinical trials of products, dependence on third-party collaborators for research operations, need for regulatory approval of products, risks associated with protection of intellectual property, and competition with larger, better-capitalized companies. Successful completion of the Company's development program and, ultimately, the attainment of profitable operations is dependent upon future events, including obtaining adequate financing to fulfill its development activities and achieving a level of revenues adequate to support the Company's cost structure. There are no assurances that the Company will be able to obtain additional financing on favorable terms, or at all or successfully market its products.

2. Summary of Significant Accounting Policies

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

Basis of Consolidation. The consolidated financial statements include the accounts of the Company, Pro-Pharmaceuticals Securities Corp., its wholly-owned subsidiary, which was incorporated in Delaware on December 23, 2003, and Medi-Pharmaceuticals, Inc., its wholly-owned subsidiary, which was incorporated in Nevada on August 17, 2010. Pro-Pharmaceuticals Securities Corp. holds the cash and cash equivalents that are not required to fund current operating needs. Medi-Pharmaceuticals, Inc. was formed for the development of technology in cardiovascular treatments. All intercompany transactions have been eliminated.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, expenses and disclosure of contingent assets and liabilities. Management's estimates and judgments include assumptions used in stock option and warrant liability valuations, useful lives of property and equipment and intangible assets, accrued liabilities, deferred income taxes and various other assumptions that are believed to be reasonable under the circumstances. Actual results could differ from those estimates.

Cash and Cash Equivalents. The Company considers all highly-liquid investments with original maturities of 90 days or less at the time of acquisition to be cash equivalents.

Prepaid Expenses and Other Current Assets. Deposits and other assets consist principally of prepaid insurance and prepaid rent on the Company's leased executive office space.

Property and Equipment. Property and equipment, including leasehold improvements, are stated at cost, net of accumulated depreciation, and are depreciated using the straight-line method over the estimated useful lives of the related assets of generally three years for computers and office equipment, five years for furniture and fixtures and the shorter of the useful life or life of the lease for leasehold improvements.

Restricted Cash. Restricted cash consists of security deposits principally for a real estate lease.

Intangible Assets. Intangible assets include patent costs, consisting primarily of related legal fees, which are capitalized and amortized over an estimated useful life of five years from issuance. Amortization expense in 2010 and 2009 was $2,000 and $14,000, respectively. Gross intangible assets at December 31, 2010 and 2009 totaled $78,000 and $93,000, respectively, and accumulated amortization at December 31,

2010 and 2009 totaled $39,000 and $37,000, respectively. The Company recorded an impairment charge related to capitalized patent costs of $15,000 and $155,000 in 2010 and 2009, respectively, which is included in general and administrative expense in the consolidated statements of operations, when it was determined that the underlying intellectual property would have no future benefit to the Company.

Long-Lived Assets. The Company reviews all long-lived assets for impairment whenever events or circumstances indicate the carrying amount of such assets may not be recoverable. Recoverability of assets to be held or used is measured by comparison of the carrying value of the asset to the future undiscounted net cash flows expected to be generated by the asset. If such asset is considered to be impaired, the impairment recognized is measured by the amount by which the carrying value of the asset exceeds the discounted future cash flows expected to be generated by the asset.

Warrants. The Company has issued common stock warrants in connection with the execution of certain equity and debt financings. Certain warrants are accounted for as derivative liabilities at fair value. Such warrants do not meet the accounting criteria that a contract should not be considered a derivative instrument if it is (1) indexed to its own stock and (2) classified in stockholders' equity. Changes in fair value of derivative liabilities are recorded in the consolidated statement of operations under the caption "Change in fair value of warrant liabilities." Warrants that are not considered derivative liabilities are accounted for at fair value at the date of issuance in additional paid-in capital. The fair value of warrants is determined using the Black-Scholes option-pricing model.

Revenue Recognition. The Company records revenue provided that there is persuasive evidence that an arrangement exists, the price is fixed and determinable, services were rendered and collectibility is reasonably assured.

Research and Development Expenses. Costs associated with research and development are expensed as incurred. Research and development expenses include, among other costs, salaries and other personnel-related costs, and costs incurred by outside laboratories and other accredited facilities in connection with clinical trials and preclinical studies.

Income Taxes. The Company accounts for income taxes in accordance with the accounting rules that requires an asset and liability approach to accounting for income taxes based upon the future expected values of the related assets and liabilities. Deferred income tax assets and liabilities are determined based on the differences between the financial reporting and tax bases of assets and liabilities and for tax loss and credit carry forwards, and are measured using the expected tax rates estimated to be in effect when such basis differences reverse. Valuation allowances are established, if necessary, to reduce the deferred tax asset to the amount that will, more likely than not, be realized.

Comprehensive Income (Loss). Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. The Company does not have any items of comprehensive income (loss) other than net losses as reported.

Fair Value of Financial Instruments. The Company's financial instruments consist of cash equivalents, accounts payable and accrued expenses. The estimated fair value of these financial instruments approximates their carrying value due to their short-term nature. Additionally, certain common stock warrants are recorded as liabilities at fair value. In September 2006, the Financial Accounting Standards Board ("FASB") issued rules, which were adopted by the Company in the first quarter of fiscal year 2008, which clarified the principle that fair value should be based on the assumptions market participants would use when pricing an asset or liability and establishes a fair value hierarchy that prioritizes the information used to develop those assumptions. Under the standard, fair value measurements are separately disclosed by level within the fair value hierarchy. See Note 9.

Concentration of Credit Risk . Financial instruments that subject the Company to credit risk consist of cash and cash equivalents and certificates of deposit. The Company maintains cash and cash equivalents and certificates of deposit with well-capitalized financial institutions. At times, those amounts may exceed federally insured limits. The Company has no significant concentrations of credit risk.

Stock-Based Compensation. Stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the service period, which generally represents the vesting period. For awards that have performance based vesting conditions the Company recognizes the expense over the estimated period that the awards are expected to be earned. The Company uses the Black-Scholes option-pricing model to calculate the grant date fair value of stock options. The expense recognized over the service period is required to include an estimate of the awards that will be forfeited.

Recent Accounting Pronouncements

In January 2010, the FASB issued Accounting Standards Update ("ASU") No. 2010-06 for Fair Value Measurements and Disclosures (Topic 820): *Improving Disclosures about Fair Value Measurements*. This Update requires new disclosures for transfers in and out of Level 1 and 2 and activity in Level 3. This Update also clarifies existing disclosures for level of disaggregation and requires additional disclosures about inputs and valuation techniques. The new disclosures are effective for interim and annual periods beginning after December 15, 2009, except for the Level 3 disclosures, which are effective for fiscal years beginning after December 15, 2010 and for interim periods within those years. Other than requiring additional disclosures, adoption of this new guidance did not have a material impact on the Company's financial statements and is not expected to have a significant impact on the reporting of the Company's financial condition or results of operations.

In April 2010, the FASB issued ASU No. 2010-17, Revenue Recognition — Milestone Method. This ASU provides guidance on the criteria that should be met for determining whether the milestone method of revenue recognition is appropriate. Under the milestone method of revenue recognition, consideration that is contingent upon achievement of a milestone in its entirety can be recognized as revenue in the period in which the milestone is achieved only if the milestone meets all criteria to be considered substantive. This standard provides the criteria to be met for a milestone to be considered substantive which includes that: a) performance consideration earned by achieving the milestone be commensurate with either performance to achieve the milestone or the enhancement of the value of the item delivered as a result of a specific outcome resulting from performance to achieve the milestone; and b) it relates to past performance and be reasonable relative to all deliverables and payment terms in the arrangement. This standard is effective on a prospective basis for milestones achieved in fiscal years beginning on or after June 15, 2010. Although the Company is still evaluating the impact of this standard, management does not expect its adoption to have a material impact on the Company's financial condition or results of operations.

3. Agreement with PROCAPS S.A. and Research Grants

Agreement with PROCAPS S.A.

On March 25, 2010, the Company granted PROCAPS S.A. ("PROCAPS") exclusive rights to market and sell DAVANAT® to treat cancer in Colombia, South America. PROCAPS is a large, international, privately held pharmaceutical company based in Barranquilla, Colombia. Under terms of the agreement, PROCAPS is responsible for obtaining regulatory and pricing approval in Colombia, South America. PROCAPS also will be responsible for the vial filling, packaging, marketing and distribution of DAVANAT® in the region.

Once approved for sale by regulators, the Company will receive a transfer payment for each dose of DAVANAT® shipped to PROCAPS, in addition to a royalty above a minimum annual sales threshold. In October 2010, the Company received a payment of $200,000 and shipped DAVANAT® to PROCAPS to be used by PROCAPS to qualify its vial filling process and to replicate the Company's stability study. The Company retains all intellectual property rights and is the owner of the regulatory approval of DAVANAT®

in the region. PROCAPS has first negotiation rights to other countries in South and Central America and the Caribbean. Should we gain approval in Colombia, PROCAPS may then obtain the marketing authorization in more than 10 countries in Latin America.

The Company recorded the $200,000 payment from PROCAPS as deferred revenue on the consolidated balance sheet as of December 31, 2010 and will recognize the revenue when the remaining deliverables of the collaboration agreement have been completed.

Qualifying Therapeutic Discovery Project

In October 2010, the Company was notified that it was awarded $489,000 total in two federal grants under the Qualifying Therapeutic Discovery Project ("QTDP") Program for its DAVANAT anti-cancer compound and for its GR/GM-Series of anti-fibrotic, cirrhosis compounds for work performed during 2010 and 2009. The Company recognized this grant in other income in the statement of operations for the year ended December 31, 2010. The Company received $255,000 of the grant in 2010 and the remaining $234,000 was received in 2011 and is included in grants receivable on the consolidated balance sheet at December 31, 2010.

4. Property and Equipment

Property and equipment consists of the following at December 31:

	2010	2009
	(in thousands)	
Leasehold improvements	$ 15	$ 15
Computer and office equipment	194	194
Furniture and fixtures	107	107
Total	316	316
Less accumulated depreciation	(309)	(299)
Property and equipment—net	$ 7	$ 17

Depreciation expense for the years ended December 31, 2010 and 2009 was $10,000 and $23,000 respectively.

5. Accrued Expenses

Accrued expenses consist of the following at December 31:

	2010	2009
	(in thousands)	
Legal and accounting fees	$ 94	$ 99
Accrued compensation	87	414
Severance agreement (Note 12)	293	154
Other	63	112
Total	$537	$779

6. Related Party Transactions

Medi-Pharmaceuticals, Inc.

On October 31, 2008, the Company's board of directors authorized Medi-Pharmaceuticals, Inc. ("Medi-Pharma"), a wholly-owned subsidiary as of that date, to enter into a joint venture to deploy certain of the Company's technology. This deployment was accomplished by: (i) a merger of FOD Enterprises, Inc., with

and into Medi-Pharma on November 25, 2008, following which Medi-Pharma became the surviving corporation and the Company became the owner of 10% of the outstanding capital stock of Medi-Pharma; and (ii) the Company entering into a license agreement with Medi-Pharma. Under the terms of the agreement Medi-Pharma was required to advance $1.0 million in cash to the Company by May 30, 2009 or the Company would have the ability to terminate the license agreement. On February 12, 2009, the Company terminated the license agreement and entered into a technology transfer and sharing agreement and a consulting agreement with Medi-Pharma. Both agreements were terminated on August 13, 2010. At December 31, 2009, Medi-Pharma had no assets or liabilities and had recorded no income or expense. The carrying value of the Company's ownership interest of Medi-Pharma at December 31, 2009 was $0. In August 2010, Medi-Pharma was in default of its corporate tax and filing obligations and was shutdown.

On August 17, 2010, the Company registered a wholly owned subsidiary in Nevada, Medi-Pharmaceuticals, Inc., a new corporation separate from Medi-Pharma as previously described above.

Warrants

In June 2010, the Company entered into an agreement with a consultant, who was also a board member, which provided for the grant of warrants for the purchase of 600,000 shares of common stock at an exercise price of $0.71 per share. These warrants were initially valued at $365,000 and the Company recognized an expense of $219,000, related to these warrants during the year ended December 31, 2010. (see Note 8)

7. Stockholders' Deficit

At December 31, 2010, the Company had 300,000,000 shares of common stock and 20,000,000 undesignated shares authorized. As of December 31, 2010, 5,000,000 shares have been designated for Series A 12% Convertible Preferred Stock, 900,000 shares have been designated for Series B-1 Convertible Preferred Stock, 2,100,000 shares have been designated for Series B-2 Convertible Preferred Stock,1,000 shares have been designated for Series C Super Dividend Convertible Preferred Stock and 11,999,000 remain undesignated.

The Company has raised capital through a number of debt and equity financing transactions. The following provides a description of the Company's equity financings and certain warrants issued in connection with such equity financings.

2001 Private Placement

During 2001, the Company sold a total of 689,300 shares of common stock for proceeds of $2,221,000, net of $17,000 of issuance costs through a private placement of securities. In connection with this issuance, the Company issued 339,200 and 350,100 warrants to purchase common stock at $6.50 and $5.00 per share, respectively. The Company valued the warrants at $886,000, based on a fair market value of the Company's common stock of $2.28 per share. These warrants expired unexercised in 2005.

In August 2001, the Company offered warrants to holders of its outstanding convertible notes as an inducement to convert prior to the maturity of the notes. Holders representing $1,126,000 of the outstanding principal and accrued interest chose to convert at a conversion price of $2.00 per share and received 598,229 common shares and 562,801 warrants. These warrants have an exercise price of $6.50 per share and were immediately exercisable. The Company valued the warrants at $503,000 based on a fair market value of the Company's common stock of $2.28 per share. The value of the warrants has been recorded as a debt conversion expense. These warrants expired unexercised in 2005.

In 2002, the Company issued 110,000 warrants to the agents in connection with the 2001 offering. The warrants are exercisable immediately at an exercise price of $3.50 per share and have a 10 year life. The Company valued these warrants at $236,000 based on a deemed fair value of the Company's common stock of $3.50 per share and recorded such value as interest expense in the statement of operations for the year ended December 31, 2002.

Public Offering

On December 13, 2001, the Company commenced a public offering of common stock, at a price to the public of $3.50 per share. The Company concluded the offering on June 30, 2002. During 2002, the Company sold 185,999 shares of common stock in this offering for proceeds of $602,000, net of $49,000 of issuance costs.

2002 Private Placement

In September 2002, the Company began a private placement (the "2002 Private Placement") of up to 10,000,000 shares of common stock at $1.00 per share. As of December 31, 2002, the Company had sold 3,223,360 shares for proceeds of $2,861,000, net of issuance costs of $212,000 and stock subscription receivable of $150,000, which related to shares purchased but for which payment had not been received as of December 31, 2002. This offering was closed on January 14, 2003, although subsequent to year end the Company sold an additional 1,088,000 shares for additional proceeds of $1,070,000, net of $18,000 of offering costs.

The Company compensated a registered investment adviser with respect to shares purchased by its clients. As of December 31, 2002, the adviser was entitled to receive 173,500 shares of common stock. The Company also agreed to compensate a finder registered under applicable law, and such finder's agents, for identifying qualified investors. As of December 31, 2002, one of the finder's agents was entitled to receive 750 shares of common stock. On January 14, 2003, the Company closed the 2002 Private Placement, at which point the Company agreed to issue the adviser an additional 2,500 shares, and the finder and its other agent an aggregate of 9,750 additional shares and $3,000 in cash in connection with the shares sold subsequent to December 31, 2002 and through the closing date.

Shares placed by such registered adviser, finder and finder's agent were accounted for as offering costs and valued at $1.00 per share, consistent with the price paid for the shares placed in the offering. Such offering costs were netted against the proceeds of the 2002 Private Placement. Since none of the 174,250 shares had been issued as of December 31, 2002, the Company recorded the obligation to issue such shares as offering costs payable. The additional 12,250 shares issued in January 2003 were also valued at $1.00 per share and included in the $18,000 offering costs recorded at the closing. These shares were subsequently issued in 2003.

During 2002, the Company also agreed to issue 2,100 shares of common stock to an employee for finding investors in connection with the 2002 Private Placement. None of the shares had been issued as of December 31, 2002. These shares were subsequently issued in 2003. Accordingly, the Company recorded the obligation to general and administrative expenses in the statement of operations in the amount of $6,000. On January 14, 2003, the Company closed the 2002 Private Placement, at which point the Company agreed to issue such employee an additional 7,000 shares in connection with shares sold subsequent to December 31, 2002 and through the closing date. The Company recorded an additional obligation of $27,000 to general and administrative expenses in 2003 representing the fair value of the additional 7,000 shares.

2002 Related Party Transaction

The Company agreed to issue 25,354 shares of common stock as payment for 2002 scientific advisory services. These shares were issued in 2003.

May 2003 Private Placement

In May 2003, the Company began a private placement of up to 2.5 million shares of common stock at $2.00 per share. As of the closing on July 15, 2003, the Company had sold 2,399,500 shares of common stock for proceeds of $4,671,000, net of issuance costs of $128,000. In connection with this offering the Company

issued 109,613 common stock warrants (exercisable at $5.40 per share) to its placement agents. The Company valued the warrants at $261,000 using the Black-Scholes pricing model and recorded the warrant value as offering costs with a corresponding increase to additional paid-in capital. These warrants expired unexercised in 2006.

October 2003 "PIPE" Transaction

On October 2, 2003 the Company closed a private offering, structured as a Private Investment, Public Equity ("PIPE"), exempt from registration under Section 4(2) of the Securities Act of 1933, in which it sold to institutional investors 1,314,571 of the 1,428,571 offered shares of common stock at $3.50 per share for proceeds of $4,041,000, net of issuance costs of $559,000. In connection with this offering, the Company issued 657,293 warrants with an initial exercise price of $5.29 per share to the investors and 65,729 warrants with an initial exercise price of $6.86 per share to its placement agent. The exercise price of the warrants was subject to adjustment pursuant to anti-dilution and other provisions. The investor warrants and placement agent Warrants were valued at $2,531,000 and $191,000, respectively, using the relative fair value, and allocated to additional paid-in-capital. The Company used the Black-Scholes pricing model to value these warrants. The warrants were originally accounted for as freestanding derivative instruments. The investor warrants expired unexercised in 2008 and the placement agent warrants expired unexercised in 2007.

April 2004 "PIPE" Transaction

On April 7, 2004, the Company closed a private equity offering, structured as a "PIPE" in which it sold to certain institutional investors 1,236,111 shares of common stock at $3.60 per share for proceeds of $3,983,000, net of cash issuance costs of $466,000. In connection with this offering, the Company issued 618,056 warrants to investors and 61,806 warrants to a placement agent with an initial exercise price of $5.30 per share. The exercise price of the warrants was subject to adjustment pursuant to anti-dilution and other provisions. The investor warrants and the placement agent warrants were valued at $1,931,000 and $154,000, respectively, using the relative fair value, and allocated to additional paid-in-capital. The Company used the Black-Scholes pricing model to value these warrants. The warrants were originally accounted for as freestanding derivative instruments. The investor warrants expired unexercised in 2009 and the placement agent warrants expired unexercised in 2007.

August 2004 "PIPE" Transaction

On August 12, 2004, the Company closed a private offering, structured as a "PIPE" in which it sold to certain institutional investors 2,000,000 shares of common stock at $3.00 per share for proceeds of $5,515,000, net of cash issuance costs of $485,000. In connection with this offering the Company issued 2,000,000 warrants to the investors and 100,000 warrants to the placement agent with an exercise price of $4.20 per share. The exercise price of the warrants was subject to adjustment solely as a result of stock splits, recapitalizations and similar events. The investor warrants and placement agent warrants were valued at $4,786,000 and $239,000, respectively, and allocated to additional paid-in-capital. The Company used the Black-Scholes pricing model to value these warrants. The warrants were originally accounted for as freestanding derivative instruments. These warrants expired unexercised in 2009.

February 25, 2008 Offering

On February 25, 2008, the Company closed an offering in which it sold to investors (i) an aggregate of 7,500,000 shares of the Company's common stock at $0.50 per share, (ii) warrants , which expire on August 25, 2013, to purchase an aggregate of 7,500,000 share of the Company's common stock at an exercise price of $0.70 per share, and (iii) warrants, which expire on December 26, 2008, to purchase an aggregate of 3,000,000 shares of the Company's common stock at an exercise price of $0.63 per share. In addition, the Company issued to a placement agent warrants, which expire on August 25, 2013, to purchase 206,250 shares of the Company's common stock at an exercise price of $0.70. The warrants are exercisable

beginning on August 25, 2008. The warrants provide for cashless exercise if at any time during the term of the warrants if there is no effective registration statement for the issuance or resale of the underlying warrant shares. The exercise price of each warrant is adjustable in the event of a stock split or stock combination, capital reorganization, merger or similar event. On December 26, 2008, the 3,000,000 warrants exercisable at $0.63 expired unexercised.

The Company received proceeds of $3,381,000, net of cash transaction costs of $369,000. In addition the Company incurred $56,000 of costs for warrants issued to a placement agent. Proceeds of $1,044,000 were allocated to common stock and $2,281,000 were allocated to investor warrants using the Black-Scholes method with a fair market value of the Company's common stock of $0.40 and the following assumptions as of February 25, 2008: for the 5 year warrants exercisable at $0.70, a risk-free interest rate of 2.94% and volatility of 95% and for the 4 month warrants exercisable at $0.63, a risk-free interest rate of 2.13% and volatility of 95%. The warrants were determined to have the characteristics of derivative liabilities and were originally accounted for as liabilities prior to the Company increasing the authorized number of shares. Changes in fair value were recognized as either a gain or loss in the consolidated statement of operations. In the second quarter of 2008 the warrants were reclassified to equity. Through May 21, 2008, these warrants were marked to market resulting in a reduction in warrant liabilities in the balance sheet and an offsetting credit to change in fair value of warrant liabilities in the statement of operations in the amount of $356,000. The remaining fair value of $2,160,000 was credited to additional paid-in capital in the balance sheet. On December 26, 2008 the 3,000,000 warrants exercisable at $0.63 expired unexercised. If the Company pays a stock dividend or makes a distribution or combines shares of its common stock, then the number of shares issuable upon exercise of this warrant shall be proportionately adjusted such that the aggregate exercise price of this warrant remains unchanged. On July 2, 2008, the Company issued 300,000 warrants to Cork Investments in exchange for $20,000. The warrants are exercisable for common stock at $1.00 per share for a period of three years. The $20,000 was credited to additional paid in capital.

Series A 12% Convertible Preferred Stock – February 4, 2008 Private Placement

On February 4, 2008, the Company closed a private placement begun in October 2007 of its Series A 12% Convertible Preferred Stock ("Series A") and related warrants. In this transaction, the Company sold units of securities at $1.00 per unit, each unit comprised of (i) one share of Series A Preferred, (ii) a warrant to purchase one share of common stock for $1.50, and (iii) a warrant to purchase one share of common stock for $2.00. Each share of the Series A is entitled to dividends at the rate of 12% per annum payable at the Company's option in cash or shares of common stock valued at the higher of $1.00 per share or 100% of the value weighted average price of the Company's share price for the 20 consecutive trading days prior to the applicable dividend payment date. Dividends are payable semi-annually on March 30 and September 30. The dividend paid on the initial dividend payment date is calculated from the date the Company deposited each subscription advance. During 2010 and 2009, the Company recorded dividends of $192,000 and $209,000, respectively, and issued 196,086 and 209,100 shares of common stock, respectively, for dividend payments.

The shares of Series A are entitled to vote as a class with the Company's common stock and each share of Series A is convertible at any time to one share of common stock, subject to adjustment in the event of a stock dividend, stock split or combination, reclassification or similar event. The Company has the right to require conversion if the closing price of the common stock exceeds $3.00 for 15 consecutive trading days and a registration statement covering the resale of the shares of common stock issuable upon conversion of the Series A is then in effect. Each warrant is exercisable solely for cash beginning August 3, 2008 and expires on February 4, 2012. The exercise price of each warrant is adjustable in the event of a stock split or stock combination, capital reorganization, merger or similar event.

As of December 31, 2007, the Company had received subscription advances of $1,667,500 for Series A. In 2008, the Company received additional subscription advances of $75,000 resulting in total gross proceeds of $1,742,500. On February 4, 2008 the Company closed the private placement. The Company incurred

$52,000 of cash transaction costs resulting in net cash proceeds of $1,691,000. In addition, the Company incurred $3,000 of costs for 8,400 warrants exercisable at $1.50 issued to placement agents. Proceeds of $984,000 were allocated to investor warrants using the Black-Scholes method with the following assumptions as of February 4, 2008: risk free interest rate 2.51%, volatility 95%, fair market value of the company's common stock on February 4, 2008, and the share price on the closing date of the transaction of $0.59. The warrants were originally accounted for as freestanding derivative instruments in the consolidated balance sheet formerly under the caption "Warrant Liabilities". These warrants were originally classified as a liability because the February 2006 warrants contain an anti-dilution provision in the event of a subsequent dilutive issuance and the potential number of shares issuable exceeded the Company's authorized shares. Changes in fair value were recognized as either a gain or loss in the consolidated statement of operations under the caption "Change in fair value of warrant liabilities". In the second quarter of 2008, the warrants were reclassified to equity as a result of an amendment to the Company's articles of incorporation approved at the May 21, 2008 annual meeting of shareholders increasing the Company's authorized common. Through May 21, 2008, these warrants were marked to market resulting in a reduction in warrant liabilities in the balance sheet and an offsetting credit to change in fair value of warrant liabilities in the statement of operations in the amount of $100,000. The remaining fair value of $502,000 was credited to additional paid-in capital in the balance sheet.

Series B Redeemable Convertible Preferred Stock

On February 12, 2009, the Company entered into a securities purchase agreement (the "10X Agreement") pursuant to which it agreed to issue and sell to 10X Fund LP, at two or more closings, up to: (i) 3,000,000 shares its Series B convertible preferred stock ("Series B redeemable convertible preferred stock" or "Series B") with an aggregate stated value of $6.0 million and convertible into 12,000,000 shares of common stock and (ii) warrants to purchase 36,000,000 shares of common stock.

Through a series of closings from February 2009 through May 2010, the Company issued and sold, pursuant to the 10X Agreement, a total of (i) 900,000 shares of Series B-1 convertible preferred stock ("Series B-1 redeemable convertible preferred stock" or "Series B-1") and related common stock warrants for 10,800,000 shares of common stock and (ii) 2,100,000 shares of Series B-2 convertible preferred stock ("Series B-2 redeemable convertible preferred stock" or "Series B-2") and related warrants for 25,200,000 shares of common stock. During 2010, the Company received total net cash proceeds of $1,463,000 from the issuance of 770,000 shares of Series B-2 and related warrants. During 2009, the Company received total net cash proceeds of $1,548,000 from the issuance of 900,000 shares of Series B-1 and related warrants and $2,472,000 from the issuance of 1,330,000 shares of Series B-2 and related warrants.

The Series B closings were as follows:

On February 12, 2009, the Company issued and sold, pursuant to the 10X Agreement: (i) 900,000 shares of Series B-1 convertible preferred stock ("Series B-1 redeemable convertible preferred stock" or "Series B-1") convertible into 3,600,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 1,800,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 1,800,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 7,200,000 shares of common stock. Net proceeds from the closing were $1,548,000.

On May 13, 2009, the Company issued and sold, pursuant to the 10X Agreement: (i) 450,000 shares of Series B-2 convertible preferred stock ("Series B-2 redeemable convertible preferred stock" or "Series B-2") convertible into 1,800,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 900,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 900,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 3,600,000 shares of common stock. Net proceeds from the closing were $801,000.

On June 30, 2009, the Company issued and sold, pursuant to the 10X Agreement: (i) 250,000 shares of Series B-2 convertible into 1,000,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 500,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 500,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 2,000,000 shares of common stock. Net proceeds from the closing were $473,000.

On August 12, 2009, the Company issued and sold, pursuant to the 10X Agreement: (i) 150,000 shares of Series B-2 convertible into 600,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 300,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 300,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 1,200,000 shares of common stock. Net proceeds from the closing were $287,000.

On September 30, 2009, the Company issued and sold, pursuant to the 10X Agreement: (i) 162,500 shares of Series B-2 convertible into 650,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 325,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 325,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 1,300,000 shares of common stock. Net proceeds from the closing were $305,000.

On November 4, 2009, the Company issued and sold, pursuant to the 10X Agreement: (i) 155,000 shares of Series B-2 convertible into 620,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 310,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 310,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 1,240,000 shares of common stock. Net proceeds from the closing were $296,000.

On December 8, 2009, the Company issued and sold, pursuant to the 10X Agreement: (i) 162,500 shares of Series B-2 convertible into 650,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 325,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 325,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 1,300,000 shares of common stock. Net proceeds from the closing were $310,000.

On January 29, 2010, the Company issued and sold, pursuant to the 10X Agreement: (i) 162,500 shares of Series B-2 convertible into 650,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 325,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 325,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 1,300,000 shares of common stock. Net proceeds from the closing were $308,000.

On March 8, 2010, the Company issued and sold, pursuant to the 10X Agreement: (i) 167,500 shares of Series B-2 convertible into 670,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 335,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 335,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 1,340,000 shares of common stock. Net proceeds from the closing were $322,000.

On April 30, 2010, the Company issued and sold, pursuant to the 10X Agreement: (i) 155,000 shares of Series B-2 convertible into 620,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 310,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 310,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 1,240,000 shares of common stock. Net proceeds from the closing were $297,000.

On May 10, 2010, the Company issued and sold, pursuant to the 10X Agreement: (i) 285,000 shares of Series B-2 convertible into 1,140,000 shares of common stock; (ii) Class A-1 warrants exercisable to purchase 570,000 shares of common stock; (iii) Class A-2 warrants exercisable to purchase 570,000 shares of common stock; and (iv) Class B warrants exercisable to purchase 2,280,000 shares of common stock. Net proceeds from the closing were $536,000.

The terms of the Series B are as follows:

Dividends. Holders of the Series B will be entitled to receive cumulative dividends at the rate of 12% per share per annum (compounding monthly) payable quarterly which may, at the Company's option, be paid in cash or common stock. As amended, all shares of Company common stock paid as dividends on the Preferred Stock shall be valued at $0.50 per share regardless of the actual market price of the common stock on the applicable dividend payment date. If the Company does not pay any dividend on the Series B, dividends will accrue at the rate of 15% per annum (compounding monthly).

Conversion Rights. Each share of Series B is convertible into four shares of common stock at the conversion price of $0.50 per share at the option of (i) the holder, at any time and (ii) the Company, at any time after February 12, 2010 (and upon 10 days notice) if the common stock is quoted at or above $1.50 for 15 consecutive trading days and an effective registration statement regarding the underlying shares of common stock is in effect (subject to certain monthly volume limits).

Redemption Rights. Upon notice of not less than 30 trading days, a holder of Series B may require the Company to redeem, in whole or in part at any time on or after the earlier of (a) February 12, 2019 or (b) the date of issuance of a promissory note to David Platt in connection with the achievement of certain milestones under his separation agreement (as amended on January 21, 2011, see Notes 12 and 14 for further details). The redemption price will be equal to the sum of the stated value of the Series B, plus all accrued but unpaid dividends thereon, as of the redemption date. If the Company fails to pay the redemption price in cash on the redemption date, then the holders of the Series B requesting redemption may, at their sole option, automatically convert their shares of Series B into a promissory note bearing interest at the rate of 15% per year and secured by a lien on all of the Company's assets. So long as any shares of the Series B remain outstanding, the Company is also subject to restrictions limiting, among other things, amendments to the Company's organizational documents; the purchase or redemption of the Company's capital stock; mergers, consolidations, liquidations and dissolutions; sales of assets; dividends and other restricted payments; investments and acquisitions; joint ventures, licensing agreements, exclusive marketing and other distribution agreements; issuances of securities; incurrence of indebtedness; incurrence of liens and other encumbrances and issuances of any common stock equivalents.

Voting Rights. Except as noted below, the holder of each share of Series B shall be entitled to the number of votes equal to the number of shares of Common Stock into which such share of Series B would be convertible, and shall otherwise have voting rights and powers equal to the voting rights and powers of the Common Stock. With respect to the election of directors, the holders of the Series B shall vote together as a separate class to elect two (2) members of the Board of Directors (the "Series B Directors"), and the Company shall take all reasonably necessary or desirable actions within its control (including, without limitation, calling special meetings of the Board of Directors, nominating such persons designated by the holders of the Series B as directors on the applicable proxy statements and recommending their election) to permit the holders of the Series B to appoint two additional (2) members of the Board of Directors (the "Series B Nominees"), who shall be subject to election by all shares of voting stock of the Company voting together as a single group, until such time as all authorized shares of Series B have has been issued and sold, after which the number of Series B Nominees shall be three (3), and shall remain three (3) until there are no longer any shares of Series B outstanding. The holders of Series B shall vote together with the holders of Common Stock and other voting capital stock of the Company to elect all other members of the Board of Directors.

Other Restrictions. So long as any shares of the Series B remain outstanding, the Company may not, without the approval of the holders of a majority of the shares of Series B outstanding, among other things, (i) change the size of the Company's Board of Directors; (ii) amend or repeal the Company's Articles of Incorporation or Bylaws or file any articles of amendment designating the preferences, limitations and relative rights of any series of preferred stock; (iii) create or increase the authorized amount of any

additional class or series of shares of stock that is equal to or senior to Series B; (iv) increase or decrease the authorized number of shares of the Series B; (v) purchase, redeem or otherwise acquire for value any shares of any class of capital stock; (vi) merge or consolidate the Company into or with any other corporation or sell, assign, lease, pledge, encumber or otherwise dispose of all or substantially all of the Company's assets or those of any subsidiary; (vii) voluntarily or involuntarily liquidate, dissolve or wind up the Company or the Company's business; (viii) pay or declare dividends on any capital stock other than the Preferred Stock, unless the Series B share ratably in such dividend and all accrued dividends payable with respect to the Series B have been paid prior to the payment or declaration of such dividend; (ix) acquire an equitable interest in, or the assets or business of any other entity in any form of transaction; (x) create or commit us to enter into a joint venture, licensing agreement or exclusive marketing or other distribution agreement with respect to the Company's products, other than in the ordinary course of business; (xi) permit the Company or any subsidiary to sell or issue any security of such subsidiary to any person or entity other than the Company; (xii) enter into, create, incur, assume or guarantee any indebtedness for borrowed money of any kind (other than indebtedness existing on the initial closing date and approved by Series B shareholders); (xiii) enter into, create, incur or assume any liens of any kind (other than certain permitted liens); (xiv) issue any common stock equivalents; (xv) increase the number of shares of the Company's common stock that may be issued pursuant to options, warrants or rights to employees, directors, officers, consultants or advisors above 1,500,000.

Warrants. Each Class A-1 warrant, Class A-2 warrant and Class B warrant is exercisable at $0.50 per share of common stock at any time on or after the date of issuance until the fifth anniversary of the respective issue date. The Company may, upon 30 days notice and so long as an effective registration statement regarding the underlying shares of common stock is in effect, issue a termination notice with respect to (i) each Class A-1 warrant on any trading day on which the market value of the common stock for each of the 15 previous trading days exceeded $1.25 per share and (ii) each Class A-2 warrant on any trading day on which the market value of the common stock for each of the 15 previous trading days exceeded $1.75 per share.

The fair value of the warrants issued in connection with the Series B-1 was $1,296,000 at the date of issuance based on the following assumptions: an expected life of 5 years, volatility of 118%, risk free interest rate of 1.79% and zero dividends. The Company allocated the gross proceeds based on the relative fair value of the Series B-1 and the related warrants, resulting in $1,105,000 of the proceeds being allocated to additional paid-in capital. The Company analyzed the Series B-1, post-allocation of the gross proceeds, and determined that there was no beneficial conversion feature at the date of issuance. The issuance costs of the Series B-1 and the amounts allocated to warrants were recorded as a reduction to the carrying value of the Series B-1 when issued, and are accreted to the redemption value of the Series B-1 through the earliest redemption date. Due to the redemption feature, the Company has presented the Series B-1 outside of permanent equity, in the mezzanine of the consolidated balance sheet at December 31, 2010 and 2009.

The fair value of the warrants issued during the year ended December 31, 2010 in connection with the Series B-2 was $4,148,000 at the dates of issuance based on the following assumptions: an expected life of 5 years, volatility of 126% to 129%, risk free interest rates of 2.27% to 2.43% and zero dividends. The fair value of the warrants issued during the year ended December 31, 2009 in connection with the Series B-2 was $5,333,000 at the dates of issuance based on the following assumptions: an expected life of 5 years, volatility of 124% to 127%, risk free interest rates of 1.98% to 2.70% and zero dividends. The Company allocated the gross proceeds based on the relative fair value of the Series B-2 and the related warrants, resulting in $1,028,000 and $1,732,000 of the proceeds being allocated to additional paid-in capital for the years ended December 31, 2010 and 2009, respectively. The issuance costs of the Series B-2 and the amounts allocated to warrants were recorded as a reduction to the carrying value of the Series B-2 when issued, and are accreted to the redemption value of the Series B-2 through the earliest redemption dates. Due to the redemption feature, the Company has presented the Series B-2 outside of permanent equity, in the mezzanine of the consolidated balance sheet at December 31, 2010 and 2009.

The Company analyzed the Series B-2, post-allocation of the gross proceeds, and determined that there was a beneficial conversion feature at the dates of issuance. Because the closing price of the common stock on the closing date was greater than the effective conversion price, $388,000 and $628,000 of the proceeds (limited to the allocation of the proceeds) during the years ended December 31, 2010 and 2009, respectively, were allocated to an embedded beneficial conversion feature of the Series B-2. The amount allocated to the beneficial conversion feature was recorded as a discount to the Series B-2 is being accreted, with such accretion being charged through the earliest redemption dates.

Series C 6% Super Dividend Convertible Preferred Stock

On December 29, 2010, the Company designated and authorized the sale and issuance of up to 1,000 shares of Series C Super Dividend Convertible Preferred Stock ("Series C") with a par value of $0.01 and a stated value equal to $10,000 (the "Stated Value").

On December 30, 2010, the Company sold and issued 212 shares of Series C at a price of $10,000 per share for gross proceeds of $2,120,000. The Company incurred $47,000 of cash transaction costs resulting in net cash proceeds of $2,073,000. In addition, the Company issued 3,000 warrants exercisable at $1.20 to a placement agent which had a de minimis value.

The terms of the Series C are as follows:

Conversion Rights. Each holder of Series C may convert all, but not less than all, of his Series C shares plus accrued and unpaid dividends into Common Stock at the price of $1.00 per share of Common Stock ("Conversion Price"), such that 10,000 shares of Common Stock will be issued per each converted share of Series C (accrued and unpaid dividends will be issued as additional shares).

Subject to the continuing obligation to pay post conversion dividends, the Company may convert all, but not less than all, of the Series C (plus all accrued and unpaid dividends) into Common Stock, at the Conversion Price, upon such time that the closing price of the Common Stock is no less than $3.00 per share for 15 consecutive trading days.

Dividends. Holders of Series C shall be entitled to receive cumulative non-compounding dividends at the rate per share of Series C equal to the greater of (i) 6% per annum of the Stated Value (also defined as the "Floor") or (ii) the product of (A) the Applicable Percentage (defined below) of net sales of the Company's DAVANAT® product generated during the applicable dividend period multiplied by (B), the fraction of (I) one (1) divided by (II) the sum of the total number of shares of Series C issued and outstanding on the dividend payment date plus the total number of Series C Post Conversion Dividend Rights issued and outstanding on the dividend payment date. Applicable Percentage means, as to each share of Series C, 2.5% (0.53% based on 212 shares issued and outstanding at December 31, 2010) until total dividends are equal to the total investment in the shares of the Series C, and 1.25% (0.265% based on 212 shares issued and outstanding at December 31, 2010) thereafter. The maximum amount each Series C shareholder will receive in dividend payments is equal to $100,000 (the "Maximum Payout"). For purposes of this dividend calculation, net sales shall mean gross revenues actually received by the Company, from the sale or licensing of the product DANAVAT®, less chargebacks, returns, expenses attributable to product recalls, duties, customs, sales tax, freight, insurance, shipping expenses, allowances and other customary deductions.

The dividend shall be payable in arrears semi annually on March 31 and September 30, beginning with the first such date after the original issue date; provided, however, that all dividends and all other distributions shall cease, and no further dividends or other distributions shall be paid, in respect of each share of Series C from and after such time that the Maximum Payout has been paid in respect of such share of Series C. Such dividends shall be payable at the Company's option either in cash or in duly authorized, fully paid and non-assessable shares of Common Stock valued at the higher of (i) $0.50 per share or (ii) the average of the Common Stock trading price for the ten (10) consecutive trading days ending on the trading day that is immediately prior to the dividend payment date.

Series C Post Conversion Dividend Right. In the event that any share of Series C is converted into Common Stock before the Maximum Payout is paid in respect of such converted share of Series C, then the holder shall have the right to continue to receive dividends in respect of such converted share of Series C equal to the remaining payout (the "Series C Preferred Stock Post Conversion Dividend Right") which shall be equal to the Maximum Payout less the cumulative dividends received through the conversion date. One share of Series C Preferred Stock Post Conversion Dividend Right shall be issued for each such converted share of Series C. The holder of each Series C Preferred Stock Post Conversion Dividend Right shall receive the remaining payout on an equal basis and in conjunction with the then outstanding shares of Series C and all the other then outstanding Series C Post Conversion Dividend Rights, in the same manner and subject to the same terms and conditions as applicable to the payment of dividends on each share of Series C, except that for purposes of calculating the dividend the Floor shall not apply. The Series C Preferred Stock Post Conversion Dividend Right shall have no stated value, liquidation preference or right to any dividends or distributions other than the remaining payout. The Series C Preferred Stock Post Conversion Right is subject to redemption in the same manner as outstanding Series C shares.

At the date of issuance, the Series C have an embedded dividend right to continue to receive dividend payments after conversion to common stock (the Series C Post Conversion Dividend Right) which requires bifurcation. The value of this post conversion dividend right on the date of issuance was determined to be de minimis due to the payment of a dividend stream other than the 6% dividend and conversion of Series C prior to the Company achieving sales of DANAVAT® was deemed improbable at that time. Upon a conversion of the Series C, the Company will be required to record a liability and the related expense during the period of conversion. The Company will continue to evaluate and assess the Series C Post Conversion Dividend Right for each reporting period.

Liquidation Rights. In the event of any liquidation, dissolution or winding up of the Company, either voluntarily or involuntarily, the holders of Series C will receive $10,000 per share plus accrued and unpaid dividends, payable prior and in preference to any distributions to the holders of Common Stock but after and subordinate to the Series A, Series B-1 and Series B-2, subject to the Maximum Payout.

Redemption. Upon a sale of the Company, the Company shall redeem all of the then outstanding shares of Series C and Series C Preferred Stock Post Conversion Rights within thirty (30) days after the transaction constituting the sale of the Corporation is closed and such closing is fully funded. The price to redeem a share of Series C and each redeemed Series C Preferred Stock Post Conversion Redemption Right shall be equal to (i) (A) the applicable return on investment ("ROI") percentage, multiplied by (B) $10,000, minus (ii) the cumulative dividends received through the redemption date. The Redemption Price shall be payable at our option either in cash or in shares of common stock valued at the higher of (i) $0.50 per share or (ii) the average market price for the ten consecutive trading days ending immediately prior to the date of redemption. The ROI Percentage shall mean the percentage that applies as of the redemption date, as follows:

ROI Percentage	
200%	before the second anniversary of the date of issuance;
250%	on or after the second anniversary of the date of issuance, but before the third anniversary of the date of issuance;
300%	on or after the third anniversary of the date of issuance, but before the fourth anniversary of the date of issuance;
350%	on or after the fourth anniversary of the date of issuance, but before the fifth anniversary of the date of issuance;
400%	on or after the fifth anniversary of the date of issuance, but before the sixth anniversary of the date of issuance;
450%	on or after the sixth anniversary of the date of issuance, but before the seventh anniversary of the date of issuance;
500%	on or after the seventh anniversary of the date of issuance, but before the eighth anniversary of the date of issuance; and
550%	on or after the eighth anniversary of the date of issuance, but before the ninth anniversary of the date of issuance.

Due to the redemption feature, the Company has presented the Series C outside of permanent equity, in the mezzanine of the consolidated balance sheet at December 31, 2010.

Voting Rights. The Series C shares have no voting rights.

8. Warrants and Warrant Liabilities

Warrants

Warrant activity is summarized as follows:

Outstanding at January 1, 2009	25,350,312
Issued	27,755,000
Cancelled	(2,718,056)
Outstanding at December 31, 2009	50,387,256
Issued	11,075,000
Cancelled	(131,000)
Exercised	(9,816,062)
Outstanding at December 31, 2010	51,515,194

The following table summarizes information with regard to outstanding warrants issued in connection with equity and debt financings and consultants as of December 31, 2010.

Issued in Connection With	Number Issued	Exercise Price	Exercisable Date	Expiration Date
February 2006 Transaction				
Investor Warrants (classified as Warrant Liabilities) (1)	2,017,544	$ 0.50	August 15, 2006	August 14, 2011
2001 Placement Agents	110,000	$ 3.50	February 1, 2002	February 1, 2012
February 4, 2008 Series A Transaction				
$1.50 Investor Warrants	1,742,500	$ 1.50	August 3, 2008	February 4, 2012
$2.00 Investor Warrants	1,742,500	$ 2.00	August 3, 2008	February 4, 2012
$1.50 Placement Agent Warrants	8,400	$ 1.50	August 3, 2008	February 4, 2012
February 25, 2008 Common Stock Transaction				
$0.70 Investor Warrants	6,650,000	$ 0.70	August 25, 2008	August 25, 2013
$0.70 Placement Agent Warrants	206,250	$ 0.70	August 25, 2008	August 25, 2013
Investor Relations Group	39,000	$ 0.50	September 30, 2008	September 30, 2011
Cork Investments	300,000	$ 1.00	July 2, 2008	July 2, 2011
February 12, 2009 Series B-1 Transaction				
$0.50 Investor Warrants—Class A-1	1,800,000	$ 0.50	February 12, 2009	February 12, 2014
$0.50 Investor Warrants—Class A-2	1,800,000	$ 0.50	February 12, 2009	February 12, 2014
$0.50 Investor Warrants—Class B	7,200,000	$ 0.50	February 12, 2009	February 12, 2014
May 13, 2009 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	900,000	$ 0.50	May 13, 2009	May 13, 2014
$0.50 Investor Warrants—Class A-2	900,000	$ 0.50	May 13, 2009	May 13, 2014
$0.50 Investor Warrants—Class B	3,600,000	$ 0.50	May 13, 2009	May 13, 2014
June 30, 2009 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	500,000	$ 0.50	June 30, 2009	June 30, 2014
$0.50 Investor Warrants—Class A-2	500,000	$ 0.50	June 30, 2009	June 30, 2014
$0.50 Investor Warrants—Class B	2,000,000	$ 0.50	June 30, 2009	June 30, 2014
April 15, 2009 Consultant Warrants	330,000	$ 0.50	April 15, 2009	April 15, 2013
May 1, 2009 Consultant Warrants	444,000	$ 0.50	May 1, 2009	May 1, 2014
June 30, 2009 Consultant Warrants	240,000	$ 0.50	June 30, 2009	June 30, 2014
July 26, 2009 Consultant Warrants	100,000	$ 0.50	July 26, 2009	July 26, 2014
August 12, 2009 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	300,000	$ 0.50	August 12, 2009	August 12, 2014
$0.50 Investor Warrants—Class A-2	300,000	$ 0.50	August 12, 2009	August 12, 2014
$0.50 Investor Warrants—Class B	1,200,000	$ 0.50	August 12, 2009	August 12, 2014
September 30, 2009 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	325,000	$ 0.50	September 30, 2009	September 30, 2014
$0.50 Investor Warrants—Class A-2	325,000	$ 0.50	September 30, 2009	September 30, 2014
$0.50 Investor Warrants—Class B	1,300,000	$ 0.50	September 30, 2009	September 30, 2014
November 4, 2009 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	310,000	$ 0.50	November 4, 2009	November 4, 2014
$0.50 Investor Warrants—Class A-2	310,000	$ 0.50	November 4, 2009	November 4, 2014
$0.50 Investor Warrants—Class B	1,240,000	$ 0.50	November 4, 2009	November 4, 2014
December 8, 2009 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	325,000	$ 0.50	December 8, 2009	December 8, 2014
$0.50 Investor Warrants—Class A-2	325,000	$ 0.50	December 8, 2009	December 8, 2014
$0.50 Investor Warrants—Class B	1,300,000	$ 0.50	December 8, 2009	December 8, 2014
January 29, 2010 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	325,000	$ 0.50	January 29, 2010	January 29, 2015
$0.50 Investor Warrants—Class A-2	325,000	$ 0.50	January 29, 2010	January 29, 2015
$0.50 Investor Warrants—Class B	1,300,000	$ 0.50	January 29, 2010	January 29, 2015
March 8, 2010 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	335,000	$ 0.50	March 8, 2010	March 8, 2015
$0.50 Investor Warrants—Class A-2	335,000	$ 0.50	March 8, 2010	March 8, 2015
$0.50 Investor Warrants—Class B	1,340,000	$ 0.50	March 8, 2010	March 8, 2015
April 30, 2010 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	310,000	$ 0.50	April 30, 2010	April 30, 2015
$0.50 Investor Warrants—Class A-2	310,000	$ 0.50	April 30, 2010	April 30, 2015
$0.50 Investor Warrants—Class B	1,240,000	$ 0.50	April 30, 2010	April 30, 2015

Issued in Connection With	Number Issued	Exercise Price	Exercisable Date	Expiration Date
May 10, 2010 Series B-2 Transaction				
$0.50 Investor Warrants—Class A-1	570,000	$ 0.50	May 10, 2010	May 10, 2015
$0.50 Investor Warrants—Class A-2	570,000	$ 0.50	May 10, 2010	May 10, 2015
$0.50 Investor Warrants—Class B	2,280,000	$ 0.50	May 10, 2010	May 10, 2015
May 25, 2010 Consultant Warrants	710,000	$ 0.75	May 25, 2010	May 25, 2014
May 25, 2010 Consultant Warrants	72,000	$ 2.50	May 25, 2010	May 25, 2014
June 15, 2010 Consultant Warrants	600,000	$ 0.71	June 15, 2010	June 15, 2015
December 9, 2010 Consultant Warrants	200,000	$ 0.65	December 9, 2010	December 9, 2015
December 30, 2010 Placement Agent Warrants	3,000	$ 1.20	December 30, 2010	December 30, 2015
Total outstanding warrants	51,515,194			

(1) The exercise price of the warrants has been adjusted from $3.35 per share to $0.50 per share and an additional 2,548,430 shares of the Company's common stock are issuable upon exercise of the warrants due to subsequent issuance of equity related instruments. The warrants were classified as equity at December 31, 2008 but have been reclassified as warrant liabilities as a result of the adoption of new accounting provisions on January 1, 2009 that require warrants with certain features to be accounted for as a liability. See Note 9.

Consultant Warrants

In May 2008 the Company entered into an agreement with Investor Relations Group ("IRG") for IRG to provide investor relations services to the Company in exchange for cash and warrants on a monthly basis. On September 30, 2008 the Company terminated the agreement under the provisions of the agreement. During the effective contract period IRG earned 39,000 warrants valued at $3,000. The expense associated with these warrants was calculated using the Black-Scholes option-pricing model and charged to stock compensation expense. The warrants are exercisable at $0.50 per share for a period of three years.

In April 2009, the Company entered into agreements with consultants that provided for the grant of warrants for the purchase of 330,000 shares of common stock at an exercise price of $0.50 per share. Of the 330,000 warrants, 80,000 vested immediately and 250,000 will vest upon the achievement of certain milestones. The initial 80,000 warrants were valued at $32,000 on issuance based on the following assumptions: an expected life of 4 years, volatility of 134%, risk free interest rate of 1.76% and zero dividends and the expense recognized upon issuance. During the year ended December 31, 2010, 50,000 warrants vested (valued at $16,000 on the vesting date using the following assumptions: expected life of 3.06 years, volatility of 140%, risk free interest rates of 1.69% and zero dividends). When it became probable that the remaining 200,000 warrants would vest, the Company valued the warrants at $124,000 as of December 31, 2010 using the following assumptions: expected life of 2.29 years, volatility of 141%, risk free interest rates of 0.61% and zero dividends. The Company recognized expense related to the 200,000 warrants of $111,000 for the year ended December 31, 2010.

In May 2009, the Company entered into agreements with consultants that provided for the grant of warrants to purchase 575,000 shares of common stock at an exercise price of $0.50 per share. The warrants were valued at $232,000 on issuance based on the following assumptions: an expected life of 5 years, volatility of 124%, risk free interest rate of 2.16% and zero dividends. The Company recognized expense related to these warrants of $53,000 and $122,000 during the years ended December 31, 2010 and 2009, respectively. As of December 31, 2010, 444,000 of these warrants were vested and 131,000 shares were forfeited. The agreements also provide for the issuance of additional warrants to purchase up to 150,000 shares of common stock based on the achievement of certain milestones. The Company will value and account for these potential warrants when it is determined that it is probable the milestones will be achieved.

In June 2009, the Company entered into an agreement with a consultant that provided for the grant of warrants for the purchase of 240,000 shares of common stock with an exercise price of $0.50 per share and

with an exercise period of 4 years. The agreement was for payment of an invoice of $48,000 for past services performed and the warrants were valued at $48,000.

In July 2009, the Company entered into agreements with a consultant that provided for the grant of warrants for the purchase of 100,000 shares of common stock at an exercise price of $0.50 per share. The warrants were valued at $37,000 on issuance based on the following assumptions: an expected life of 4 years, volatility of 136%, risk free interest rate of 2.08% and zero dividends. The warrants vested immediately and the Company recognized expense related to these warrants of $37,000 during the year ended December 31, 2009.

In May 2010, the Company granted warrants to consultants for the purchase of 210,000 shares of common stock at an exercise price of $0.75 per share. The warrants were valued at $134,000 on issuance based on the following assumptions: an expected life of 4 years, volatility of 143%, risk free interest rate of 1.610% and zero dividends. The warrants vested immediately and the company recognized an expense of $134,000 related to these warrants during the year ended December 31, 2010.

In May 2010, the Company entered into an agreement with a consultant that provided for the grant of warrants for the purchase of 72,000 shares of common stock at an exercise price of $2.50 per share. The warrants were initially valued at $40,000 on issuance based on the following assumptions: an expected life of 4 years, volatility of 143%, risk free interest rate of 1.610% and zero dividends. The warrants vest at a rate of 3,000 per month and the unvested warrants will be revalued as they vest. The following assumptions were used to value the warrants for the year ended December 31, 2010: an expected life of 3.40 to 3.99 years, volatility of 130% to 144%, risk free interest rate of 0.51% to 1.68% and zero dividends. At December 31, 2010, 30,000 warrants were vested. The company recognized an expense of $15,000 related to these warrants during the year ended December 31, 2010.

In May 2010, the Company entered into an agreement with a consultant that provided for the grant of warrants for the purchase of 500,000 shares of common stock at an exercise price of $0.75 per share. The warrants were initially valued at $320,000 on issuance based on the following assumptions: an expected life of 4 years, volatility of 143%, risk free interest rate of 1.610% and zero dividends. The warrants vest based on the achievement of certain fundraising milestones. At December 31, 2010, all 500,000 warrants were unvested. The Company will revalue and recognize the expense related to these warrants as they vest. The Company did not recognize any expense related to these warrants during the year ended December 31, 2010, since the Company determined that it was not yet probable that the milestones will be achieved.

In June 2010, the Company entered into an agreement with a consultant, who is also a board member, which provided for the grant of warrants for the purchase of 600,000 shares of common stock at an exercise price of $0.71 per share. These warrants were initially valued at $365,000 based on the following assumptions: an expected life of 5 years, volatility of 129%, risk free interest rate of 1.8% and zero dividends. Of the 600,000 warrants, 150,000 vested immediately on signing of the agreement, 150,000 vest at the end of one year and the remaining 300,000 warrants vest based on the achievement of certain milestones. The unvested warrants will be revalued as they vest. The following assumptions were used to value the unvested warrants on December 31, 2010: an expected life of 4.46 years, volatility of 137%, risk free interest rate of 1.52% and zero dividends. The Company recognized an expense of $219,000, related to these warrants during the year ended December 31, 2010.

In December 2010, the Company granted warrants to a consultant for the purchase of 200,000 shares of common stock at an exercise price of $0.65 per share. The warrants were valued at $112,000 on issuance based on the following assumptions: an expected life of 5 years, volatility of 130%, risk free interest rate of 1.9% and zero dividends. The warrants vested immediately and the company recognized an expense of $34,000 and $78,000 (included in accrued expenses on the consolidated balance sheet at December 31, 2009) related to these warrants during the years ended December 31, 2010 and 2009, respectively.

In December 2010, the Company issued warrants to a placement agent for the purchase of 3,000 shares of common stock at an exercise price of $1.20 per share. These warrants were valued at $2,000 using the following assumptions: an expected life of 5 years, volatility of 130%, risk free interest rate of 2.06% and zero dividends.

Impact of Adopting Provisions Regarding Warrant Liabilities

In June 2008, the Financial Accounting Standards Board ("FASB") ratified standards related to determining whether an instrument (or an embedded feature) is indexed to an entity's own stock. The standards provide that an entity should use a two step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to its own stock, including evaluating the instrument's contingent exercise and settlement provisions. The standard is effective for fiscal years beginning after December 15, 2008. The Company adopted the standard on January 1, 2009 and determined that the 6,989,574 warrants issued in connection with the February 2006 Transaction that had been classified as equity and included in additional paid-in capital at December 31, 2008, should be classified as liabilities due to repricing and anti-dilution provisions contained in the warrant agreements. The impact of adopting new accounting provisions on January 1, 2009, which required the treatment of warrants with certain features as liabilities rather than equity, was a decrease in additional paid-in-capital by $458,000, which was the fair value recorded at the time the warrants were transferred from a liability to equity during the year ended December 31, 2008, an increase of warrant liabilities by $204,000, the fair value of the warrants as of January 1, 2009 and a credit to accumulated deficit for the difference.

During the years ended December 31, 2010 and 2009, the Company recognized a loss of $1,241,000 and $1,374,000, respectively in its condensed consolidated statements of operations related to the change in fair value of warrant liabilities.

9. Fair Value of Financial Instruments

In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize data points that are observable, such as quoted prices, interest rates and yield curves. Fair values determined by Level 3 inputs utilize unobservable data points for the asset or liability. A majority of the Company's financial liabilities have been classified as Level 2. These Level 2 liabilities consist of warrant liabilities and have been valued using the Black-Scholes pricing model. The fair values of our money markets (cash equivalents), are readily determinable and have therefore been classified as Level 1 assets. The Company assesses the levels of its financial instruments at each measurement date, and transfers between levels are recognized on the actual date of the event or change in circumstances that caused the transfer in accordance with the Company's accounting policy regarding the recognition of transfers between levels of the fair value hierarchy.

The Company uses the Black-Scholes pricing model to calculate fair value of its warrant liabilities. The Company considered using methods of valuation other than Black-Scholes for the year ended December 31, 2010, but due to the short term nature of these instruments, which expire in August 2011, the Company determined that using a different valuation method would not likely result in a materially different valuation. Key assumptions used to apply these models are as follows:

	December 31,	
	2010	2009
Risk free interest rate	0.19%	1.14%
Expected life	0.62 years	1.62 years
Expected volatility of common share price	70%	156%
Common share price	$ 0.90	$ 0.28

Below is a summary of our fair value measurements at December 31, 2010 and 2009:

	Value at year end	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
		(in thousands)		
Year ended December 31, 2010:				
Warrant liabilities	$ 861	$ —	$ 861	$ —
Year ended December 31, 2009:				
Warrant liabilities	$ 1,633	$ —	$ 1,633	$ —

There were no transfers between level 1, 2 or 3 during the years ended December 31, 2010 and 2009.

A summary of changes in the Warrant Liabilities is as follows:

	Fair Value of Warrant Liabilities
	(in thousands)
Balance January 1, 2009	$ 55
Cumulative effect of change in accounting policy	204
Change in fair value of warrant liabilities	1,374
Balance December 31, 2009	$ 1,633
Change in fair value of warrant liabilities	1,241
Intrinsic value of liability warrants exercised	(2,013)
Balance December 31, 2010	$ 861

The Company's financial instruments consist of cash equivalents, accounts payable and accrued expenses. The estimated fair value of these financial instruments approximates their carrying value due to their short-term nature.

10. Stock-Based Compensation

Summary of Stock-Based Compensation Plans

At December 31, 2010, the Company had three stock-based compensation plans where the Company's common stock has been made available for equity-based incentive grants as part of the Company's compensation programs (the "Plans") as follows:

2001 Stock Incentive Plan. In October 2001, the Company's Board of Directors adopted the Pro-Pharmaceuticals, Inc. 2001 Stock Incentive Plan (the "Incentive Plan"), which permits awards of incentive and nonqualified stock options and other forms of incentive compensation to employees and non-employees such as directors and consultants. The Board has 5,000,000 shares of common stock for issuance upon exercise of grants made under the Incentive Plan. Options granted under the Incentive Plan vest either immediately or over a period of up to three years, and expire 3 years to 10 years from the grant date. At December 31, 2010, 125,000 shares were available for future grant under the Incentive Plan.

2003 Non-Employee Director Stock Option Plan. In 2003, the stockholders approved the Pro-Pharmaceuticals, Inc. 2003 Non-Employee Director Stock Option Plan (the "Director Plan"), which permits awards of stock options to non-employee directors. The stockholders reserved 1,000,000 shares of common stock for issuance upon exercise of grants made under the Director Plan. At December 31, 2010, 801,000 shares were available for future grant under the Director Plan.

2009 Incentive Compensation Plan. In February 2009, the Company adopted the 2009 Incentive Compensation Plan (the "2009 Plan") which provides for the issuance of up to 10,000,000 shares of the

Company's common stock in the form of options, stock appreciation rights, restricted stock and other stock-based awards to employees, officers, directors, consultants and other eligible persons. At December 31, 2010, 360,000 shares were available for future grant under the 2009 Plan.

In addition, the Company has awarded 464,604 non-plan stock option grants to non-employees. These non-plan grants have vesting periods and expiration dates similar to those options granted under the Incentive Plan. At December 31, 2010, 364,250 non-plan grants were outstanding.

Stock-based compensation expense, including restricted stock, totaled $1,281,000 and $1,610,000 in 2010 and 2009, respectively. The Company expenses the value of stock options as earned. The fair value of the options granted is determined using the Black-Scholes option-pricing model. The following weighted average assumptions were used:

	2010	2009	Cumulative Period from Inception (July 10, 2000) to December 31, 2010
Risk-free interest rate	2.38%	2.0%	2.44%
Expected life of the options	5 years	5 years	5 years
Expected volatility of the underlying stock	126%	122%	112%
Expected dividend rate	0%	0%	0%

As noted above, the fair value of stock options is determined by using the Black-Scholes option pricing model. For all options granted since January 1, 2006 the Company has generally used option terms of between 5 to 7 years, with 5 years representing the estimated life of options granted. The volatility of the common stock is estimated using historical volatility over a period equal to the expected life at the date of grant. The risk-free interest rate used in the Black-Scholes option pricing model is determined by reference to historical U.S. Treasury constant maturity rates with terms equal to the expected terms of the awards. An expected dividend yield of zero is used in the option valuation model, because the Company does not expect to pay any cash dividends in the foreseeable future. At December 31, 2010, the Company does not anticipate any awards will be forfeited in the calculation of compensation expense due to the limited number of employees that receive stock option grants and the Company's historical employee turnover.

The following table summarizes the stock option activity in the stock based compensation plans:

	Shares	Exercise Price Per Share	Weighted Average Exercise Price
Outstanding, January 1, 2009	4,706,500	$0.38 – 4.48	$ 2.32
Granted	6,221,500	0.00 – 0.48	0.32
Forfeited/Cancelled	(467,750)	0.20 – 3.75	0.79
Exercised	(200,000)	0.00	0.00
Outstanding, December 31, 2009	10,260,250	$0.12 – 4.05	$ 1.20
Granted	2,180,000	0.30	0.30
Forfeited/Cancelled	(62,000)	2.61 – 2.70	2.69
Exercised	(584,000)	0.12 – 0.44	0.22
Outstanding, December 31, 2010	11,794,250	$0.12 – 4.05	$ 1.07

The following tables summarize information about stock options outstanding at December 31, 2010:

	Options Outstanding			Options Exercisable	
Exercise Price	Number of Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
$0.12 – $0.30	4,700,500	3.60	$ 0.25	4,509,747	$ 0.25
$0.38 – $0.70	4,067,000	4.04	0.48	2,917,000	0.48
$1.01 – $2.92	793,500	2.01	1.37	793,500	1.37
$3.00 – $4.05	2,233,250	1.90	3.77	2,233,250	3.77
	11,794,250	3.32	$ 1.07	10,453,497	$ 1.15

The weighted-average grant-date fair values of options granted during 2010 and 2009 were $0.26 and $0.27, respectively. As of December 31, 2010 there were unvested options to purchase 1,340,753 shares of common stock. Total expected unrecognized compensation cost related to such unvested options is $219,000, which is expected to be recognized over a weighted–average period of 1.3 years. As of December 31, 2010, the aggregate intrinsic value of outstanding options was $4,771,000 and the aggregate intrinsic value of exercisable options was $4,156,000, based the Company's closing common stock price of $0.90.

During 2010, 584,000 options were exercised valued at $104,000. During 2009, 200,000 options were exercised by a consultant valued at $24,000. During the year ended December 31, 2010, the Company received $128,000 for the exercise of stock options. No cash was received from the exercise of employee stock options during the cumulative period from inception to December 31, 2009. The intrinsic value of options exercised during the year ended December 31, 2010 was $290,000. The intrinsic value of options exercised for the cumulative period from inception through December 31, 2009 was $98,000 resulting from the cashless exercise of options in 2003 and 2009.

The total fair value of options vested during the years ended December 31, 2010, 2009 and the cumulative period from inception to December 31, 2010 was $1,098,000, $1,076,000 and $8,456,000, respectively.

Other Stock Based Compensation Transactions

During 2001, the Company entered into a consulting agreement with a non-employee, who was also a Board member and former member of the Audit Committee, pursuant to which the Company granted 200,000 options to purchase common stock at an exercise price of $3.50 in consideration for services to be performed. At the time of issuance, these options were valued at $239,000 based on a deemed fair market value of the Company's common stock of $2.28 per share. Total expense for the years ended December 31, 2003, 2002 and 2001 related to these options was $71,000, $64,000 and $147,000, respectively.

In March 2002, the Company entered into a second agreement with the same non-employee, by which the Company granted 2,000 options a month to purchase common stock at an exercise price of $3.50 in consideration for monthly consulting services. On November 11, 2002 such agreement was superseded by an amendment, which was effective retroactively to the date of the original agreement, March 1, 2002. Under the amended agreement, the Company granted 24,000 options on March 1, 2002, which vest at a rate of 2,000 options per month, as services are performed. These options were valued at $11,000 using the Black-Scholes option-pricing model, based on a grant date fair value of the Company's common stock of $2.16 per share. During 2002, the Company recorded a $41,000 charge to stock compensation expense related to the 20,000 options that vested during the year. As of December 31, 2002, the Company had deferred compensation of $11,000 that related to the remaining unvested options, which was recognized in 2003.

In June 2003, the Company entered into a third agreement with the same non-employee, by which the Company granted 24,000 options effective retroactively to March 1, 2003, which vest at a rate of 2,000 options per month as services are performed. These options were valued at $33,000 using the Black-Scholes option-pricing model, based on a fair market value of the Company's common stock of $3.50 per share. The consulting arrangement was concluded on March 1, 2004. The Company recorded fair value adjustments of ($2,000) and $21,000 related to the unvested consultant options during 2004 and 2003, respectively. Total expense for the years ended December 31, 2004 and 2003 related to these options was $17,000 and $40,000, respectively.

In January 2003, the Company granted 100,000 options at an exercise price of $3.50 to a Board member for consulting services unrelated to services performed as a director. One-third of the options vested immediately and the balance vests in equal amounts on the first and second anniversaries of the award. The options were valued at $156,000 using the Black-Scholes option-pricing model, based on a fair market value of the Company's common stock of $2.80 per share. The consulting services were completed and the consulting arrangement was concluded as of March 31, 2004. The Company recorded fair value adjustments of $4,000 and $82,000 related to the unvested consultant options during 2004 and 2003, respectively. Total expense for the years ended December 31, 2004 and 2003 related to these options was $51,000 and $193,000, respectively.

In May 2003, the Company granted 10,000 options at an exercise price of $3.50 to a new member of the Scientific Advisory Board. One-half of the options vested immediately and the balance vests on the second anniversary. These options were valued at $16,000 using the Black-Scholes option-pricing model based on a fair market value of the Company's common stock of $2.80 per share. The Company recorded fair value adjustments of $2,000 and $6,000 related to the unvested consultant options during 2004 and 2003, respectively. Total expense for the years ended December 31, 2004 and 2003 related to these options was $5,000 and $13,000, respectively.

In September 2003, the Company granted 25,000 options each to a Board member and to a member of the Scientific Advisory Board for consulting services. The options were exercisable immediately at $4.05 per share. These options were valued using the Black-Scholes option-pricing model based on a grant date fair value of the Company's common stock of $2.44 per share. The Company recorded a $122,000 charge to stock compensation expense in 2003 related to these awards.

In October 2003, in connection with the resignation of its former Chief Financial Officer, the Company accelerated the vesting on 100,000 options granted to such officer in September 2003 at an exercise price of $4.05, which was equal to the fair market value of the common stock on the date of grant. As the fair market value of the common stock was $4.45 per share at the time the vesting was accelerated, the Company recorded a $40,000 charge to stock compensation expense. Also, in October 2003, such officer exercised on a cashless basis 50,000 options at an exercise price of $2.97 per share resulting in the issuance of 16,629 shares. As the fair market value of the Company's common stock on the date of exercise was $4.45 per share, the Company recorded a charge of $74,000 to stock compensation expense in 2003 related to the exercise of these options.

In March 2004, the Company issued 25,000 options in fulfillment of a September 2003 agreement with an investor relations firm. The agreement obligated the Company to pay a monthly retainer and issue options at a rate of 5,000 options per month, up to a maximum of 100,000 options, exercisable at $5.80 per share as services are performed. The Company concluded the engagement in February 2004. The options were exercisable immediately and expired on March 26, 2007. Accordingly, the Company recorded $29,000 as stock compensation expense in 2003 on the 15,000 options that vested as of December 31, 2003 and an additional stock compensation expense of $23,000 in 2004 on the 10,000 options that vested in January and February 2004. The stock compensation expense was determined based on a fair market value of the options when the options were earned. These options expired unexercised in 2007.

In April 2004, the Company entered into an agreement with an investor relations firm. The agreement obligated the Company to pay a monthly retainer and issue options at a rate of 5,000 per month up to a maximum of 60,000 options exercisable at $5.16 per share as services are performed. During 2004, 45,000 options were earned but not issued. During 2005 15,000 options were earned and the full 60,000 options were issued. The Company recorded $67,000 in 2004 and $14,000 in 2005 as stock compensation expense related to this agreement. The stock compensation expense was determined based on the fair market value of the options when the options were earned. The options were exercisable immediately and expired three years from the agreement date. These options expired unexercised in 2007.

In November 2005, the Company issued 5,000 options to a member of the Scientific Advisory Board for consulting services. The options were exercisable immediately at $2.61 per share. These options were valued using the Black-Scholes option-pricing model based on a grant date fair value of the Company's common stock of $1.35 per share which was the fair market value at the date of the grant. The Company recorded a $7,000 charge to stock compensation expense in 2005 related to this award. These options expired unexercised in 2010.

In March 2006 the Company issued 15,000 options to a consultant for consulting services. 5,000 of the options were exercisable immediately, 5,000 options vest in March 2008 and 5,000 options vest in March 2009. The options are exercisable at $3.75 per share. These options were valued using the Black-Scholes option-pricing model based on a grant date fair value of the Company's common stock of $2.20 per share which was the fair market value at the date of the grant. The Company is recording a $33,000 charge to stock compensation expense over the vesting period of the options.

In December 2007, the Company issued 5,000 options to a consultant for consulting services. The options were exercisable immediately at $0.63 per share. These options were valued using the Black-Scholes option-pricing model based on a grant date fair value of the Company's common stock of $0.46 per share which was the fair market value at the date of the grant. The Company recorded a $2,000 charge to stock compensation expense in 2007 related to this award.

In April 2008, the Company issued 48,000 options to a consultant for consulting services. The options were exercisable immediately at $0.44 per share. These options were valued using the Black-Scholes option-pricing model based on a grant date fair value of the Company's common stock of $0.39 per share which was the fair market value at the date of the grant. The Company recorded a $15,000 charge to stock compensation expense in 2008 related to this award.

In February 2009, the Company issued 200,000 options to a consultant for consulting services. The options were exercisable immediately at $0 per share. These options were valued using the Black-Scholes option-pricing model based on a grant date fair value of the Company's common stock of $0.12 per share which was the fair market value at the date of the grant. The Company recorded a $24,000 charge to stock compensation expense in 2009 related to this award.

Restricted Stock

During the year ended December 31, 2009, the Company granted 2,500,000 shares of restricted common stock to members of its Board of Directors. These shares are restricted and any unvested shares are subject to forfeiture upon termination and would revert back to the Company. Of the 2,500,000 shares, 2,343,750 were vested as of December 31, 2010, an additional 156,250 will vest in 2011. The restricted shares were valued at $450,000 ($0.18 per share) at the date of grant and will be recognized over the vesting period. During 2010 and 2009, the Company recognized stock-based compensation of $235,000 and $197,000, respectively, related to these restricted stock grants.

In 2010, the Company granted 100,000 shares of restricted common stock to a consultant. These shares were restricted until November 15, 2010 and any unvested shares were subject to forfeiture upon termination and would revert back to the Company. At December 31, 2010 there were no restricted shares remaining. The

restricted shares were valued at $71,000 ($0.71 per share) at November 15, 2010, and the Company recognized expenses of $71,000 during 2010 related to these shares.

	Number of Shares	Weighted Average Price on Grant
Unvested restricted shares outstanding, December 31, 2009	2,500,000	$ 0.18
Restricted shares issued	100,000	0.44
Restricted shares vested	(2,443,750)	0.19
Unvested restricted shares outstanding, December 31, 2010	156,250	$ 0.18

11. Loss Per Share

Basic loss per share is based on the weighted-average number of common shares outstanding during each period. Diluted loss per share is based on basic shares as determined above plus the incremental shares that would be issued upon the assumed exercise of in-the-money stock options and warrants using the treasury stock method. The computation of diluted net loss per share does not assume the issuance of common shares that have an anti-dilutive effect on net loss per share. For the years ended December 31, 2010 and 2009, all stock options, warrants and potential shares related to conversion of the Series A, the Series B and the Series C were excluded from the computation of diluted net loss per share. Dilutive shares which could exist pursuant to the exercise of outstanding stock instruments and which were not included in the calculation because their affect would have been anti-dilutive are as follows:

	December 31,	
	2010 (Shares)	2009 (Shares)
Warrants to purchase shares of common stock	51,515,194	50,387,256
Options to purchase shares of common stock	11,794,250	10,260,250
Restricted shares subject to vesting	156,250	2,500,000
Shares of common stock issuable upon conversion preferred stock	15,712,500	10,562,500
	79,178,194	73,710,006

12. Commitments and Contingencies

Lease Commitments

The Company leases its facility under a non-cancelable operating lease that expires in August 2011. In connection with the operating lease, the Company has issued a letter of credit which is secured by restricted cash on deposit with the bank as a security deposit of $59,000. Rent expense under these operating leases was $298,000 and $287,000 for the years ended December 31, 2010 and 2009, respectively.

Future minimum payments under this lease as of December 31, 2010 are as follows (in thousands):

Year ended December 31,	
2011	$167
Total lease payments	$167

Separation Agreement — Former Chief Executive Officer and Chairman of the Board of Directors

In February 2009, the Company entered into a Separation Agreement in connection with the resignation of David Platt, Ph.D., the Company's former Chief Executive Officer and Chairman of the Board of Directors.

The Separation Agreement provides that the Company shall continue to pay Dr. Platt his current salary at a monthly rate of $21,667 for 24 months and that it may defer payment of a portion of such salary amounts greater than $10,000 per month (so long as Dr. Platt does not receive payments of less than the salary payments being made to the Company's Chief Executive Officer). However, all deferred amounts will continue to accrue and will be payable on the earlier of (i) the Company receiving a minimum of $4.0 million of funding after February 12, 2009, or (ii) February 12, 2011. The Company also agreed to continue to (i) provide health and dental insurance benefits to Dr. Platt, until the first to occur of February 12, 2011 or the date Dr. Platt and his family become eligible to receive health and dental insurance benefits under the plans of a subsequent employer and (ii) make the current monthly lease payments on his automobile until February 12, 2011. The Company recognized the full amount of the salary, health insurance and automobile during the first quarter of 2009. The remaining liability related to this severance is reflected in accrued expenses ($293,000) on the consolidated balance sheet at December 31, 2010 and in accrued expenses ($154,000) and other long-term liabilities ($280,000) on the consolidated balance sheet at December 31, 2009. The final payment was paid to Dr. Platt on February 12, 2011.

The Separation Agreement also provides for the deferral of a $1.0 million severance payment due to Dr. Platt under his employment agreement until the occurrence of any of the following milestone events: (i) the approval by the Food and Drug Administration for a new drug application ("NDA") for any drug candidate or drug delivery candidate based on the DAVANAT® technology (whether or not such technology is patented). We also will grant Dr. Platt fully vested cashless stock option with identical terms to purchase at least 500,000 shares of common stock; (ii) consummation of a transaction with a pharmaceutical company expected to result in at least $10.0 million of equity investment or $50 million of royalty revenue to the Company. The Company also will grant Dr. Platt fully vested cashless-exercise stock options exercisable to purchase at least 300,000 shares of common stock for ten (10) years at an exercise price not less than the fair market value of the Common Stock determined as of the date of the grant; or (iii) the renewed listing of our securities on a national securities exchange. Payment upon the events (i) and (iii) may be deferred up to nine months, and if the Company has insufficient cash at the time of any of such events, it may issue Dr. Platt a secured promissory note for such amount. If the Company file a voluntary or involuntary petition for bankruptcy, whether or not a milestone event has occurred, such event shall trigger our obligation to pay the $1.0 million with the result that Dr. Platt may assert a claim for such obligation against the bankruptcy estate. Due to the uncertainties regarding the achievement of any of the milestones as described, the Company has not accrued for the $1.0 million severance nor has it recognized the value of the unissued stock options as of December 31, 2010. When it is deemed probable that one or more of the milestone events will be achieved, the Company will then recognize the $1.0 million severance and the expense related to the issuance of the stock option at that time based on the then current fair value.

Legal Proceedings

Other than claims and legal proceedings that arise from time to time in the ordinary course of business which are not material, the Company has no pending legal proceedings except as follows:

On January 30, 2008, Custom Equity Research, Incorporated (d/b/a Summer Street Research Partners) ("Summer Street") filed a lawsuit against the Company in the Superior Court of the Commonwealth of Massachusetts, alleging claims for breach of contract, declaratory judgment and unjust enrichment arising out of an engagement letter under which Summer Street agreed to provide institutional investment placement services to the Company. Summer Street claims it is entitled to a placement fee for each placement made during the term of the agreement and for each issuance of securities made or agreed to be made by the Company from October 17, 2007 through November 16, 2008. The Company initially responded to the lawsuit with a motion to dismiss, which the Court denied on June 23, 2008, finding that the letter agreement was ambiguous with respect to Summer Street's entitlement to compensation. The Court also denied Summer Street's motion for a prejudgment attachment and trustee process, preliminarily finding that Summer Street was not likely to prevail on any of its claims. The Company filed an answer denying

Summer Street's material allegations. Discovery is currently under way. A trial date has been set for November 8, 2011. The Company believes the lawsuit is without merit and intends to contest it vigorously.

The Company is in receipt of a letter dated January 12, 2011 from Maxim Group ("Maxim"), which has acted as a Placement Agent for the Company. The letter advises that Maxim has been named as a respondent in a FINRA arbitration matter commenced by Summer Street, alleging claims for tortious interference with advantageous business and contractual relations, fraud and deceit, negligent misrepresentation, unjust enrichment, violation of Massachusetts Consumer Protection Act, Mass. Gen. Laws ch. 93A, and civil conspiracy, arising out of the Company's termination of its relationship with Summer Street and its engagement of Maxim as its placement agent. The Company has agreed to indemnify and provide a defense to Maxim in accordance with the Placement Agreements between Maxim and the Company. The Company believes that the arbitration is without merit and intends to assist Maxim in its vigorous defense.

13. Income Taxes

The components of the net deferred tax assets are as follows at December 31:

	2010	2009
	(in thousands)	
Operating loss carryforwards	$ 17,242	$ 16,572
Tax credit carryforwards	230	212
Other temporary differences	473	276
	17,945	17,060
Less valuation allowance	(17,945)	(17,060)
Net deferred tax asset	$ —	$ —

The primary factors affecting the Company's income tax rates were as follows:

	2010	2009
Tax benefit at U.S. statutory rates	(34.0%)	(34.0%)
State tax benefit	(5.3%)	(5.3%)
Permanent differences	13.5%	11.3%
Research and development credits	(0.9%)	(0.8%)
Changes in valuation allowance	26.7%	28.8%
	0%	0%

As of December 31, 2010, the Company has federal and state net operating loss carryforwards totaling $46,965,000 and $24,109,000 respectively, which expire through 2030. In addition, the Company has federal and state research and development credits of $149,000 and $82,000, respectively, which expire through 2030. Ownership changes, as defined by Section 382 of the Internal Revenue Code, may have
limited the amount of net operating loss carryforwards that can be utilized annually to offset future taxable income. Subsequent ownership changes could further affect the limitation in future years. Because of the Company's limited operating history and its recorded losses, management has provided, in each of the last two years, a 100% valuation allowance against the Company's net deferred tax assets.

At December 31, 2010 the Company has $1,082,000 of unrecognized tax benefits, $923,000 of which would affect the effective tax rate. The Company has not recognized an adjustment to the deficit accumulated during the development stage for unrecognized tax benefits because a full valuation allowance has been recorded against net operating loss carry forwards. Since the Company's net deferred tax assets and the unrecognized tax benefits would not result in a cash payment, the Company has not accrued for any interest and penalties relating to these unrecognized tax benefits. Should the Company incur interest and penalties

related to income taxes, those amounts would be included in income tax expense. Total amounts of unrecognized tax benefits are not expected to significantly increase or decrease within 12 months of the reporting date.

The Company is subject to taxation in the U.S. and various states. Based on the history of net operating losses all jurisdictions and tax years are open for examination until the operating losses are utilized or the statute of limitations expires.

14. Subsequent Events

The Company has evaluated all events or transactions that occurred through the date on which the financial statements were issued, noting the following:

Series B Amendments

On January 21, 2011, the Company and 10X Fund amended the Certificate of Designation as follows: (a) to delete the Company's right to convert the Series B to Common Stock under certain conditions, (b) to extend the Series B-1 and Series B-2 Redemption Date from July 15, 2011 to be the earlier of (i) February 12, 2019 or (ii) the date of issuance of a promissory note to David Platt in connection with the achievement of certain milestones under his separation agreement, (c) to provide that the Company may pay dividends on the Series B on the terms set forth in the original Certificate of Designation beginning with the dividend date due September 30, 2011, and (d) to provide that any shares of Series B that are presented for transfer by 10X (including to its partners) shall be deemed converted into Common Stock on such date.

The Company amended the related Class B Warrants to provide that one-half (warrants for 12,000,000 shares of common stock) may be exercised on a cash-less basis.

The Company amended the related Class A-1 and A-2 Warrants to provide for a 90 day notice rather than 30 days should the Company decide to issue a termination notice with respect to (i) each Class A-1 warrant on any trading day on which the market value of the common stock for each of the 15 previous trading days exceeded $1.25 per share and (ii) each Class A-2 warrant on any trading day on which the market value of the common stock for each of the 15 previous trading days exceeded $1.75 per share.

Warrant and Option Exercises

Subsequent to December 31, 2010, the Company issued 3,757,472 shares of common stock for the exercise of common stock warrants and options, resulting in total net cash proceeds of $2,209,000.

Series C

Subsequent to December 31, 2010, the Company issued an additional 13 shares of Series C, resulting in gross proceeds of $130,000.

Option Grant

On March 9, 2011, the Company announced that its Board of Directors appointed Peter G. Traber, M.D., President and Chief Executive Officer effective March 17, 2011. In conjunction with the appointment of Dr. Traber, the Board of Directors on March 7, 2011 granted Dr. Traber 5,000,000 10-year stock options, at an exercise price of $1.16 per share, which vest as to 750,000 options on the grant date, 625,000 options on the first and second anniversaries of the grant date, 500,000 options on the third and fourth anniversaries of the grant date and 1,000,000 on the Fifth anniversary of the grant date. The remaining 1,000,000 options will vest upon the achievement of certain milestones. With respect to options that vest on anniversaries, exercise rights are accelerated upon achievement of certain milestones.

Table of Contents

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

ALTERNATE

Subject To Completion, Dated April 28, 2011

PROSPECTUS

PROLOR PHARMACEUTICALS, INC.

The LEADER in GALECTIN THERAPEUTICS®

4,350,000 Shares of Common Stock

This prospectus covers the offer of 4,350,000 shares of our common stock issuable upon the exercise of warrants we sold to investors in February 2008.

The warrants became exercisable in August 2008, have an exercise price of $0.70 per share, and are exercisable until August 16, 2013.

To the extent that the warrants are exercised for cash, rather than by cashless exercise, we will receive proceeds constituting the exercise price of such warrants.

We urge you to carefully read this prospectus and any accompanying prospectus supplement before you make an investment decision.

Investing in our securities involves a high degree of risk. You should purchase these securities only if you can afford a complete loss of your investment. See "Risk Factors" beginning on page 4 of this prospectus.

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

The date of this prospectus is [ ], 2011

ALTERNATE

The Offering

Securities Offered	4,350,000 shares of our common stock issuable upon the exercise of warrants we sold to investors in February 2008.
Description of Warrants	The warrants, are exercisable until August 16, 2013 to purchase an aggregate of 4,350,000 shares of our common stock at an exercise price of $0.70 per share. The warrants became exercisable in August 2008.
Use of Proceeds	To the extent that the warrants are exercised for cash, rather than by cashless exercise, we will receive proceeds constituting the exercise price of such warrants. Any such proceeds received by us through warrant exercises will be used for working capital.

ALTERNATE

USE OF PROCEEDS

To the extent that the warrants are exercised for cash, rather than by cashless exercise, we will receive proceeds constituting the exercise price of such warrants. Any such proceeds received by us through warrant exercises will be used for working capital.

DETERMINATION OF OFFERING PRICE

The terms and conditions of the warrants, including the exercise price, were determined by negotiation between us and the placement agent at the time of the February 2008 transaction in which the warrants were sold. The principal factors considered at the time of the February 2008 transaction in determining these terms and conditions included:

1. the market price of our common stock;
2. the information set forth in this prospectus and otherwise available to the placement agent;
3. our history and prospects and the history of, and prospects for, the industry in which we compete;
4. our past and present financial performance and an assessment of our management;
5. our prospects for future earnings and the state of our development;
6. the general condition of the securities markets;
7. the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
8. other factors deemed relevant by the placement agent and us.

PLAN OF DISTRIBUTION

The warrants, including the warrant issued to the placement agent, became exercisable on August 16, 2008 and are exercisable, in whole or in part, until August 16, 2013 to purchase an aggregate of 4,350,000 shares of our common stock at an exercise price of $0.70 per share. Upon proper exercise of the warrants in accordance with their terms, we will issue the shares of our common stock being offered hereby to the holders of the exercised warrants.

PART II. INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses payable by us in connection with this offering of securities described in this registration statement. All amounts shown are estimates. The Registrant will bear all expenses shown below.

Accounting fees and expenses	$25,000
Legal fees and expenses	$20,000
Printing and engraving expenses	$ 1,000
Other	$ 500
Total	$46,500

Item 14. Indemnification of Directors and Officers.

The registrant's By-laws, as amended to date, provide for indemnification of officers and directors to the fullest extent permitted by Section 7502 of Chapter 78 of the Nevada Revised Statutes ("NRS") (as from time to time amended), provided such officer or director acts in good faith and in a manner which such person reasonably believes to be in or not opposed to the best interests of the registrant, and with respect to any criminal matter, had no reasonable cause to believe such person's conduct was unlawful.

NRS 78.7502 states:

"1. A corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, except an action by or in the right of the corporation, by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with the action, suit or proceeding if he:

(a) Is not liable pursuant to NRS 78.138; or

(b) Acted in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of *nolo contendere* or its equivalent, does not, of itself, create a presumption that the person is liable pursuant to NRS 78.138 or did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation, or that, with respect to any criminal action or proceeding, he had reasonable cause to believe that his conduct was unlawful.

2. A corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses, including amounts paid in settlement and attorneys' fees actually and reasonably incurred by him in connection with the defense or settlement of the action or suit if he:

(a) Is not liable pursuant to NRS 78.138; or

(b) Acted in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the corporation.

Indemnification may not be made for any claim, issue or matter as to which such a person has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals therefrom, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court in which the action or suit was brought or other court of competent jurisdiction determines upon application that in view of all the circumstances of the case, the person is fairly and reasonably entitled to indemnity for such expenses as the court deems proper.

3. To the extent that a director, officer, employee or agent of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections 1 and 2, or in defense of any claim, issue or matter therein, the corporation shall indemnify him against expenses, including attorneys' fees, actually and reasonably incurred by him in connection with the defense."

The registrant's By-laws also provide that to the fullest extent permitted by NRS 78.751 (as from time to time amended), the registrant shall pay the expenses of officers and directors of the Corporation incurred in defending a civil or criminal action, suit or proceeding, as they are incurred and in advance of the final disposition of such matter, upon receipt of an undertaking in form and substance acceptable to the board of directors for the repayment of such advances if it is ultimately determined by a court of competent jurisdiction that the officer or director is not entitled to be indemnified.

NRS 78.751 states:

"1. Any discretionary indemnification pursuant to NRS 78.7502, unless ordered by a court or advanced pursuant to subsection 2, may be made by the corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances. The determination must be made:

(a) By the stockholders;

(b) By the board of directors by majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding;

(c) If a majority vote of a quorum consisting of directors who were not parties to the action, suit or proceeding so orders, by independent legal counsel in a written opinion; or

(d) If a quorum consisting of directors who were not parties to the action, suit or proceeding cannot be obtained, by independent legal counsel in a written opinion.

2. The articles of incorporation, the bylaws or an agreement made by the corporation may provide that the expenses of officers and directors incurred in defending a civil or criminal action, suit or proceeding must be paid by the corporation as they are incurred and in advance of the final disposition of the action, suit or proceeding, upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined by a court of competent jurisdiction that he is not entitled to be indemnified by the corporation. The provisions of this subsection do not affect any rights to advancement of expenses to which corporate personnel other than directors or officers may be entitled under any contract or otherwise by law.

3. The indemnification pursuant to NRS 78.7502 and advancement of expenses authorized in or ordered by a court pursuant to this section:

(a) Does not exclude any other rights to which a person seeking indemnification or advancement of expenses may be entitled under the articles of incorporation or any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, for either an action in his official capacity or an action in another capacity while holding his office, except that indemnification, unless ordered by a court pursuant to NRS 78.7502 or for the advancement of expenses made pursuant to subsection 2, may not be made to or on behalf of any director or officer if a final adjudication establishes that his acts or omissions involved intentional misconduct, fraud or a knowing violation of the law and was material to the cause of action.

(b) Continues for a person who has ceased to be a director, officer, employee or agent and inures to the benefit of the heirs, executors and administrators of such a person."

In addition, the registrant maintains directors' and officers' liability insurance which insures against liabilities that its directors and officers may incur in such capacities.

Reference is made to "Undertakings," below, for the registrant's undertakings in this registration statement with respect to indemnification of liabilities arising under the Securities Act of 1933, as amended (the "Securities Act").

Item 15. Recent Sales of Unregistered Securities.

The following information relates to all securities issued or sold by the Registrant within the past three years and not registered under the Securities Act. Each of the transactions described below was conducted in reliance upon the exemptions from registration provided in Section 4(2) of the Securities Act and the rules and regulations promulgated thereunder. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

1. On February 12, 2009, the Registrant entered into a Securities Purchase Agreement (the "10X Agreement") with 10X Fund, L.P. (the "Purchaser"), the Company agreed to issue and sell to Purchaser, and Purchaser agreed to purchase, at two or more closings, (i) 3,000,000 shares of the Company's Series B Convertible Preferred Stock with an aggregate stated value of $6.0 million and convertible into 12,000,000 shares of the Company's common stock and (ii) warrants to purchase 36,000,000 shares of Common Stock.

On February 12, 2009, the initial closing date under the 10X Agreement, the Company issued and sold to Purchaser: (i) 900,000 shares of Series B-1 Preferred Stock convertible into 3,600,000 shares of Common Stock; (ii) Class A-1 Warrants exercisable to purchase 1,800,000 shares of Common Stock; (iii) Class A-2 Warrants exercisable to purchase 1,800,000 shares of Common Stock; and (iv) Class B Warrants exercisable to purchase 7,200,000 shares of Common Stock for an aggregate purchase price of $1.8 million.

In subsequent closings from May 13, 2009 to May 10, 2010 under the 10X Agreement, the Company issued and sold to Purchaser an aggregate of: (i) 2,100,000 shares of Series B-2 Preferred Stock convertible into 8,400,000 shares of Common Stock; (ii) Class A-1 Warrants exercisable to purchase up to 4,200,000 shares of Common Stock; (iii) Class A-2 Warrants exercisable to purchase up to 4,200,000 shares of Common Stock; and (iv) Class B Warrants exercisable to purchase up to 16,800,000 shares of Common Stock for an aggregate purchase price of up to $4.2 million.

2. On December 30, 2010, and during January 2011, the Registrant issued and sold 212 and 13 shares, respectively, of its Series C Super Dividend Convertible Preferred Stock, par value $0.01 per share, at a stated value per share equal to $10,000, for gross proceeds of $2,250,000.

Item 16. Exhibits.

The following exhibits are filed herewith or incorporated by reference herein:

Exhibit Number	Description
4.1	Form of Registration Rights Agreement (incorporated by reference to Exhibit 10.1 to the registrant's Current report on Form 8-K filed October 9, 2007).
4.2	Form of Common Stock Purchase Warrant ($1.50 exercise price) (incorporated by reference to Exhibit 10.3 to the registrant's Current report on Form 8-K filed October 9, 2007).
4.3	Form of Common Stock Purchase Warrant ($2.00 exercise price) (incorporated by reference to Exhibit 10.4 to the registrant's Current report on Form 8-K filed October 9, 2007).
4.4	Securities Purchase Agreement dated February 14, 2008, by and among Pro-Pharmaceuticals, Inc. and the Purchasers named therein (incorporated by reference to Exhibit 10.1 to the registrant's Current report on Form 8-K filed February 15, 2008).
4.5	Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 to the registrant's Current report on Form 8-K filed February 15, 2008).
5.1	Opinion of McCarter & English LLP (including the consent of such firm) regarding the legality of the securities being offered.
23.1	Consent of McGladrey & Pullen, LLP, an independent registered public accounting firm.
23.2	Consent of Caturano and Company, Inc., an independent registered public accounting firm.
23.3	Consent of McCarter & English LLP (included as part of Exhibit 5.1 hereto).
24	Powers of Attorney (previously filed).

Item 17. Undertakings.

Insofar as indemnification by the registrant for liabilities arising under the Securities Act, may be permitted to directors, officers and controlling persons of the registrant pursuant to the provisions referenced in Item 14 of this registration statement, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. If a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by a director, officer or controlling person in connection with the securities being registered hereunder, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act, and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

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

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered

would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

2. That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and this offering of such securities at that time shall be deemed to be the initial bona fide offering thereof;

3. To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of this offering;

4. That, for the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use; and

5. That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) any preliminary prospectus or prospectus of an undersigned registrant relating to this offering required to be filed pursuant to Rule 424;

(ii) any free writing prospectus relating to this offering prepared by, or on behalf of, the undersigned registrant or used or referred to by the undersigned registrant;

(iii) the portion of any other free writing prospectus relating to this offering containing material information about an undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) any other communication that is an offer in this offering made by the undersigned registrant to the purchaser.

6. The undersigned registrant hereby undertakes to file, during any period in which offers or sales are being made, a supplement to the prospectus included in this Registration Statement which sets forth, with respect to a particular offering, the specific number of shares of common stock to be sold, the name of the holder, the sales price, the name of any participating broker, dealer, underwriter or agent, any applicable commission or discount and any other material information with respect to the plan of distribution not previously disclosed.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Post-Effective Amendment No. 4 on Form S-1 to the Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Newton, State of Massachusetts on April 28, 2011.

PRO-PHARMACEUTICALS, INC.

By: /S/ PETER G. TRABER
Name: **Peter G. Traber, M.D.**
Title: **Chief Executive Officer and President**

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment No. 4 to the Registration Statement has been signed by the following persons in the capacities and on the dates stated.

Signature	Title	Date
/S/ PETER G. TRABER **Peter G. Traber, M.D.**	Chief Executive Officer, President and Director (Principal Executive Officer)	April 28, 2011
/S/ ANTHONY D. SQUEGLIA **Anthony D. Squeglia**	Chief Financial Officer (Principal Financial and Accounting Officer)	April 28, 2011
* **James C. Czirr**	Executive Chairman and Director	April 28, 2011
* **Rod D. Martin**	Vice-Chairman and Director	April 28, 2011
* **Gilbert F. Amelio, Ph.D.**	Director	April 28, 2011
* **S. Colin Neill**	Director	April 28, 2011
* **Steven Prelack**	Director	April 28, 2011
* **Jerald K. Rome**	Director	April 28, 2011
* **Theodore D. Zucconi, Ph.D.**	Director	April 28, 2011

*By: /S/ ANTHONY D. SQUEGLIA
Anthony D. Squeglia, Attorney-in-Fact

Exhibit 5.1

[McCarter & English LLP letterhead]

April 27, 2011

Pro-Pharmaceuticals, Inc.
7 Wells Avenue
Newton, Massachusetts 02459

Re: Post-Effective Amendment No. 4 on Form S-1 to Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Pro-Pharmaceuticals, Inc., a Nevada corporation (the "Company") in connection with its Post-Effective Amendment No. 4 on Form S-1 to Registration Statement on Form S-3 (the "Registration Statement") filed the by the Company with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933 (the "Securities Act") which contains a combined prospectus registering the sale or resale of an aggregate of 9,147,500 shares of the Company's common stock, par value $0.001 par value (the "Shares"). The Shares are issuable upon conversion of shares of the Company's Series A 12% Convertible Preferred Stock ("the "Series A Preferred") or exercise of warrants issued in connection with the Series A Preferred or sold by the Company in February 2008 (collectively, the "Warrants").

On the basis of such investigation as we have deemed necessary, we are of the opinion that (i) the Shares have been duly authorized for issuance, and (ii) when issued upon conversion pursuant to the terms of the Series A Preferred or upon payment pursuant to exercise of the Warrants in accordance with their terms, the Shares will be fully paid and non-assessable shares of the common stock of the Company.

We hereby consent to the filing of this opinion as an exhibit to, and all references to our firm contained in, the Registration Statement. In giving this consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the General Rules and Regulations of the Commission.

Very truly yours

/s/ McCarter & English LLP

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Post-Effective Amendment No. 4 to Registration Statement (Nos. 333-150898 and 333-148911) on Form S-1 to Form S-3 of Pro-Pharmaceuticals, Inc. of our report dated March 15, 2011, relating to our audit of the consolidated financial statements for the year ended December 31, 2010 and the period from inception (July 10, 2000) to December 31, 2010, appearing in the Prospectus, which is part of this Registration Statement.

We also consent to the reference to our firm under the caption “Experts” in such Prospectus.

/s/ McGladrey & Pullen, LLP

Boston, Massachusetts
April 28, 2011

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

As independent registered public accountants, we hereby consent to the use of the report of Caturano and Company, P.C. (whose name has since been changed to Caturano and Company, Inc.), dated March 12, 2010 relating to the financial statements for Pro-Pharmaceuticals, Inc. as of and for the year ended December 31, 2009, and for the period from inception (July 10, 2000) to December 31, 2009 (which report expresses an unqualified opinion and includes explanatory paragraphs relating to the substantial doubt about the Company's ability to continue as a going concern and the change in the manner in which the Company accounts for certain warrants) in, and to all references to our Firm included in or made a part of, this Post-Effective Amendment No. 4 on Form S-1 to Form S-3 (Registration Nos. 333-150898 and 333-148911).

/s/ Caturano and Company, Inc.
Caturano and Company, Inc. (Formerly Caturano and Company, P.C.)
April 28, 2011