PRO PHARMACEUTICALS INC
Form S-3
March 16, 2011
Table of Contents

As filed with the Securities and Exchange Commission on March 16, 2011

Registration No. 333-_____

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

PRO-PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Nevada	**04-3562325**
(State or other jurisdiction of	**(I.R.S. Employer**

incorporation or organization) **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)

Theodore D. Zucconi, Ph.D.

Chief Executive Officer

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, Esq.

McCarter English, LLP

265 Franklin Street

Boston, Massachusetts 02110

Telephone: (617) 449-6598

Telecopy: (617) 607-9348

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ¨

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, as amended (the Securities Act) other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

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 registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ¨

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or classes of additional securities pursuant to Rule 413(b) under the Securities Act, check the following box. ¨

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1) (2)	Proposed Maximum Offering Price Per Share (1) (2)	Proposed Maximum Aggregate Offering Price(1) (3)	Amount of Registration Fee
Preferred Stock, par value $0.01 per share				
Common Stock, par value $0.001 per share				
Warrants				
Units				
Total			$50,000,000	$5,805(4)

(1) Such indeterminate amount or number of shares of preferred stock, shares of common stock, warrants, or units to purchase any combination of the foregoing securities, as may from time to time be issued at indeterminate prices, with an aggregate initial offering price not to exceed $50,000,000. Securities registered hereunder may be sold separately, together or as units with other securities registered hereunder. The securities also include such indeterminate number of shares of preferred stock, shares of common stock, warrants, or units as may be issued upon conversion or exchange for preferred stock, upon exercise of warrants or pursuant to the anti-dilution provisions of any such securities.

(2) With respect to the primary offering, such information is not required to be included pursuant to General Instruction II.D of Form S-3 under the Securities Act of 1933, as amended, or the Securities Act.

(3) The proposed maximum aggregate price has been estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.

(4) Calculated pursuant to Rule 457(o) under the Securities Act.

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 that specifically states that the Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THESE SECURITIES MAY NOT BE SOLD UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED MARCH 16, 2011

PROSPECTUS

PRO-PHARMACEUTICALS, INC.

$50,000,000

Preferred Stock

Common Stock

Warrants

Units

From time to time, we may offer and sell shares of preferred stock, common stock, warrants, or units to purchase preferred stock, common stock, warrants or any combination of these securities, either separately or in units, in one or more offerings in amounts, at prices and on terms that we will determine at the time of the offering. The aggregate initial offering price of all securities sold by us under this prospectus will not exceed $50,000,000.

Each time we offer securities, we will provide you with specific terms of the securities offered in supplements to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus, the information incorporated by reference in this prospectus, any applicable prospectus supplement and the additional information described below under the heading Where You Can Find More Information carefully before you invest in any securities.

The securities offered by this prospectus may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers. We will set forth the names of any underwriters or agents in an accompanying prospectus supplement. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Our common stock is listed on The OTC Bulletin Board under the symbol PRWP . The last reported sale price of our common stock on March 15, 2011 was $1.05 per share.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISKS. SEE RISK FACTORS ON PAGE OF THIS PROSPECTUS AND IN THE OTHER DOCUMENTS INCORPORATED BY REFERENCE IN THIS PROSPECTUS AND THE APPLICABLE PROSPECTUS SUPPLEMENT TO READ ABOUT FACTORS YOU SHOULD CONSIDER BEFORE BUYING OUR SECURITIES.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus or the accompanying prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2011.

Table of Contents

Table of Contents

TABLE OF CONTENTS

Table of Contents

Our executive offices are located at 7 Wells Avenue, Newton, Massachusetts 02459. Our telephone number is (617) 559-0033, our facsimile number is (617) 928-3450 and our website address is www.pro-phramaceuticals.com. The information on our website is not incorporated by reference into this prospectus.

Important Notice about the Information Presented in this Prospectus

You should rely only on the information contained or incorporated by reference in this prospectus or any applicable prospectus supplement. We have not authorized anyone to provide you with information in addition to or different from that contained in this prospectus or any applicable prospectus supplement. We will be offering to sell, and seeking offers to buy, the shares only in jurisdictions whether offers and sales are permitted. You should not assume that the information in this prospectus or any applicable prospectus supplement is accurate as of any date other than the date on the front of those documents.

Unless the context otherwise requires, throughout this prospectus and any applicable prospectus supplement, the words Pro-Pharmaceuticals we, us, the registrant , our Company or the Company 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; the term securities refers collectively to our preferred stock, common stock, warrants, units or debt securities to purchase preferred stock, common stock or debt securities, or any combination of the foregoing securities.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Using this process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offering transactions up to a total dollar amount of $50,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell any securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the specific terms of that particular offering. Each such prospectus supplement may also add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. To the extent that any statements that we make in a prospectus supplement are inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. This prospectus, together with the applicable prospectus supplements and the documents incorporated by reference into this prospectus, includes all material information relating to the offering of the securities described in this prospectus. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sales of securities. To obtain additional information that may be important to you, you should read the exhibits filed by us with the registration statement of which this prospectus is a part or our other filings with the SEC. You should read this prospectus, any applicable prospectus supplement and the additional information described below under Where You Can Find More Information before making any investment decision with respect to the securities offered hereby.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any applicable prospectus supplement and the documents incorporated by reference contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Various statements in this prospectus, and any prospectus supplement, may be forward-looking statements, under the securities laws. Words such as, but not limited to, believe, expect, anticipate, estimate, intend, may, targets, likely, will, would, and could, and similar expressions or words, identify forward-looking statements. Forward-looking state are based upon current expectations that involve risks, changes in circumstances, assumptions and uncertainties. Important factors that could cause actual results to differ materially from those reflected in our forward-looking statements include, among others:

- the extent and effectiveness of the development, sales and marketing and distribution support DAVANAT® receives;
- our ability to successfully commercialize DAVANAT®;
- delays in the completion of our clinical trials;

a failure of our products, product candidates or partnered products to be demonstrably safe and effective;

our failure to obtain regulatory approval for our products or product candidates or to comply with ongoing regulatory requirements;

Table of Contents

a lack of acceptance of our products, product candidates or partnered products in the marketplace, or a failure to become or remain profitable;

our expectations regarding trends with respect to our costs and expenses;

our inability to obtain the capital necessary to fund additional research and development activities;

our failure to identify or obtain rights to new products or product candidates;

our failure to develop or obtain sales, marketing and distribution resources and expertise or to otherwise manage our growth;

a loss of any of our key scientists or management personnel;

losses incurred from product liability claims made against us; and

a loss of rights to develop and commercialize our products or product candidates under our license and sublicense agreements.

All written and verbal forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We caution investors not to rely too heavily on the forward-looking statements we make or that are made on our behalf. We undertake no obligation, and specifically decline any obligation, to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

We encourage you to read the discussion and analysis of our financial condition and our consolidated financial statements contained in or incorporated by reference in this prospectus, and any prospectus supplement. We also encourage you to read the statements under Risk Factors and other sections of this prospectus, which contains a more complete discussion of the risks and uncertainties associated with our business. In addition to the risks described above and in the section entitled Risk Factors of this prospectus, other unknown or unpredictable factors also could affect our results. There can be no assurance that the actual results or developments anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, us. Therefore, no assurance can be given that the outcomes stated in such forward-looking statements and estimates will be achieved.

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 the 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

Table of Contents

various types of cancer, including colorectal, breast and gastrointestinal. 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 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.

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 common stock is quoted on The OTC Bulletin Board under the symbol PRWP . Our 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-phramaceuticals.com. The information on our website is not incorporated by reference into this prospectus.

RECENT DEVELOPMENTS

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.

Federal research grant

On February 8, 2011, we received the final payment of $234,000 of our $489,000 federal grant under the Qualifying Therapeutic Discovery Project Program.

Warrant and option exercises

Subsequent to December 31, 2010, we issued and sold 3,757,472 shares of common stock upon exercise of common stock warrants and options, resulting in aggregate cash proceeds of $2,209,000.

Amendment of Series B Preferred Stock and related warrants

On January 21, 2011, we entered into an agreement, or 10X Agreement, with 10X Fund, L.P., or 10X Fund, the holder of all of our issued and outstanding shares of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred, or Series B Preferred Stock, to amend the terms of the Series B Preferred Stock and related warrants. As provided for in the 10X Agreement, we amended and restated the Certificate of Designation for the Series B Preferred Stock to delete the Company s right to trigger a mandatory conversion, to extend the redemption date for the Series B Preferred Stock, to permit dividends paid in shares in common stock calculated at prevailing trading prices for the common stock, and to require that any request for transfer of shares of Series B Preferred Stock be deemed an automatic conversion to shares of our common stock. Also, as provided for in the 10X Agreement, we amended the related warrants held by 10X Fund to extend the period for required exercise or termination when the mandatory exercise condition is triggered, and to reclassify one-half, of the Series B warrants (warrants for 12,000,000 shares of common stock) to allow for cashless exercise. Please see Description of Capital Stock - Preferred Stock in this prospectus for a more complete summary of the terms of the Series B Preferred Stock.

Table of Contents

The requirement to amend the Certificate of Designation for the Series B Preferred Stock was based on a representation in the 10X Agreement that the 10X Fund partnership agreement had been amended to bar its limited partners from withdrawals of their Series B Preferred Stock provided the 10X Fund had implemented a quarterly liquidation program entitling its partner to participate in sales of our common stock owned by the 10X Fund.

Series C Super Dividend Convertible Preferred Stock

As of January 10, 2011, we completed our private placement of 225 shares of our Series C Super Dividend Convertible Preferred Stock, or Series C Preferred Stock, for aggregate gross proceeds of $2,250,000. Please see Description of Capital Stock - Preferred Stock in this prospectus for a more complete summary of the terms of the Series C Preferred Stock.

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the risks described below and the other information before deciding to invest in our securities. 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 from inception to December 31, 2010 was $56.7 million.

Based on approximately $8.1 million of cash as of February 10, 2011, we believe that we have sufficient cash to meet our financial and operating obligations into the second half of 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 must raise additional cash by the end of the second 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

Table of Contents

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. We granted PROCAPS exclusive rights to market and sell DAVANAT® to treat cancer in Colombia, South America. 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

Table of Contents

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.

Table of Contents

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 interim 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 intend 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 Financial Industry Regulatory Authority, or 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 in 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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Risks Related to this Offering

There is no public market for the offered securities other than our common stock.

Our common stock is traded on the OTC Bulletin Board and is not listed on any securities exchange. We have not registered any series of our currently issued and outstanding preferred stock for trading in the public securities markets and do not intend to do so. There is no established public trading market for any securities that we may offer and sell under this prospectus other than our common stock. Without an active market, the liquidity of the securities other than our common stock will be limited.

Because we have broad discretion in how we use the proceeds from this offering, we may use the proceeds in ways with which you disagree.

We will use the net proceeds for general corporate purposes and we have not allocated specific amounts of the net proceeds from this offering for any specific purpose. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. You will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested in a way that does not yield a favorable, or any, return for our company. The failure of our management to use such funds effectively could have a material adverse effect on our business, financial condition, operating results and cash flow.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities offered by this prospectus for general corporate purposes, which

Table of Contents

may include working capital, research and development, clinical trial expenditures, acquisitions of new technologies and investments, and the repayment or redemption of preferred stock. Additional information on the use of net proceeds from the sale of securities offered by this prospectus may be set forth in the prospectus supplement relating to that offering.

DESCRIPTION OF SECURITIES

Common Stock

We currently have authorized 300,000,000 shares of common stock, par value $0.001 per share. As of March 15, 2011, there were 67,666,627 shares of common stock outstanding. Holders of our common stock have no preemptive rights and no right to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of our common stock are fully paid and non-assessable.

The following summary of the terms of our common stock is subject to and qualified in its entirety by reference to our Articles of Incorporation and by-laws, copies of which are on file with the SEC as exhibits to previous SEC filings. Please refer to the section entitled Where You Can Find More Information for directions on obtaining these documents.

Voting Rights. The holders of our common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders, including, without limitation, the election of our board of directors. Our stockholders have no right to cumulate their votes in the election of directors.

Dividends. Subject to preferences that may apply to shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive ratably those dividends declared from time to time by the board of directors.

Rights Upon Liquidation. Subject to preferences that may apply to shares of preferred stock outstanding at the time, in the event of liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in assets remaining after payment of liabilities.

Preferred Stock

We are currently authorized to issue 20,000,000 shares of undesignated stock, par value $0.01 per share, the rights and privileges of which may be established from time to time by our board of directors. As of the date of this prospectus, our board of directors has designated:

- 5,000,000 as Series A 12% Convertible Preferred Stock, or Series A Preferred Stock, of which 1,592,500 are issued and outstanding as of the date of this prospectus;
- 900,000 as Series B-1 Convertible Preferred Stock, or Series B-1 Preferred Stock, and 2,100,000 as Series B-2 Convertible Preferred Stock, referred to together as the Series B Preferred Stock, all of which are issued and outstanding as of the date of this prospectus supplement; and
- 1,000 as Series C Super Dividend Convertible Preferred Stock, or Series C Preferred Stock, of which 225 are issued and outstanding as of the date of this prospectus supplement.

Series A Preferred Stock

The shares of Series A Preferred Stock accrue interest at 12% per annum payable at our option in cash or shares of common stock valued per share at the higher of $1.00 or 100% of the value weighted average price of our shares of common stock for the 20 consecutive trading days prior to the applicable dividend payment date. Holders are entitled to vote as a class with the common stock and each share of Series A Preferred Stock 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. We may require

11

Table of Contents

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 Preferred Stock is then in effect.

Series B Preferred Stock

Dividends. The holders of our Series B Preferred Stock are entitled to receive cumulative dividends at the rate of 12% per share per annum (compounding monthly) payable quarterly. At our option, the dividends may be paid in cash or shares of our common stock valued at 100% of the volume weighted average price of our common stock for the 20 consecutive trading days prior to the dividend payment date provided that there is an effective registration statement covering the shares of common stock and the issuance of the shares does not trigger certain anti-dilution to which we are subject. If we do not pay a dividend on the Series B Preferred Stock, dividends will accrue at the rate of 15% per annum (compounding monthly).

Voting. The holders of Series B Preferred Stock, or Series B Holders, are entitled to the number of votes equal to the number of shares of common stock into which the shares of Series B Preferred Stock would be convertible on the record date for the vote or consent of shareholders, and will otherwise have voting rights and powers equal to the voting rights and powers of the common stock.

With respect to the election of our directors, the Series B Holders will vote together as a separate class to elect two members of our Board of Directors, and we will take all reasonably necessary or desirable actions within our control to permit the Series B Holders to appoint three additional members of our Board of Directors, who will be subject to election by all shares of our voting stock voting together as a single group (and will remain three until there are no longer any shares of Series B Preferred Stock outstanding).

Conversion. Each share of Series B Preferred Stock is convertible into four shares of our common stock at the conversion price of $0.50 per share (subject to customary anti-dilution protection adjustments) (i) at the option the Series B Holder, at any time, and (ii) automatically in the event that the Series B Holder transfers any shares of Series B Preferred Stock to a third party for any reason.

Redemption. Upon notice of not less than 30 trading days, a Series B Holder may require us to redeem, in whole or in part, after the earlier of (i) February 12, 2019, or (ii) the date of issuance of a promissory note to David Platt, Ph.D. pursuant to the Separation Agreement between us and Dr. Platt dated February 9, 2009 as a result of our failure to make certain milestone payments by the due date thereof. The redemption price will be equal to the sum of the stated value of the Series B Preferred Stock, plus all accrued but unpaid dividends thereon, as of the redemption date.

If we fail to pay the redemption price in cash on the redemption date, then the Series B Holders requesting redemption may, at their sole option, automatically convert their shares of Series B Preferred Stock into a promissory note bearing interest at the rate of 15% per year and secured by a lien on all of our assets. We have executed a promissory note, security agreement and escrow agreement, which are being held in escrow and will be released to the Series B Holder upon the occurrence of such an event.

Liquidation Preference. Upon our liquidation, dissolution or winding up (including certain deemed liquidation events constituting a sale, merger or reorganization), the Series B Holders are entitled to a liquidation preference to any distribution of our assets to the holders of common stock, but pari passu with the holders of our Series A Preferred Stock, in an amount equal to the sum of the stated value of the Series B Preferred Stock, plus all accrued but unpaid dividends thereon, as of the record date for distribution.

Other Restrictions. So long as any shares of the Series B Preferred Stock remain outstanding, we may not, without the approval of the holders of a majority of the shares of Series B Preferred Stock outstanding, among other things, (i) change the size of our Board of Directors; (ii) amend or repeal our 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

Table of Contents

of any additional class or series of shares of stock that is equal to or senior to Series B Preferred Stock; (iv) increase or decrease the authorized number of shares of the Series B Preferred Stock; (v) purchase, redeem or otherwise acquire for value any shares of any class of our capital stock; (vi) merge or consolidate into or with any other corporation or sell, assign, lease, pledge, encumber or otherwise dispose of all or substantially all of our assets or those of any subsidiary; (vii) voluntarily or involuntarily liquidate, dissolve or wind up our company or our business; (viii) pay or declare dividends on any capital stock other than the Preferred Stock, unless the Series B Preferred Stock share ratably in such dividend and all accrued dividends payable with respect to the Series B Preferred Stock 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 our products, other than in the ordinary course of business; (xi) permit us or any subsidiary to sell or issue any security of such subsidiary to any person or entity other than us; (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 Holders); (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 our common stock that may be issued pursuant to options, warrants or rights to employees, directors, officers, consultants or advisors above 1,500,000 (subject to customary anti-dilution protection adjustments).

Series C Super Dividend Preferred Stock

Liquidation Preference. In the event of our liquidation, dissolution or winding down, either voluntarily or involuntarily, holders of our Series C Preferred Stock will receive $10,000 per share plus accrued and unpaid dividends, payable prior and in preference to any distributions to the holders of our common stock but after and subordinate to our Series A Preferred Stock and Series B Preferred Stock.

Dividends. Holders of our Series C Preferred Stock or of any Series C Preferred Stock Post Conversion Dividend Rights, as defined below under Post Conversion Dividend, are entitled to receive, and we are obligated to pay, cumulative non-compounding dividends at the rate per share of Series C Preferred Stock equal to the greater of (i) 6% per annum of the initial purchase price (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) dividend by (II) the sum of the total number of shares of Series C Preferred Stock issued and outstanding on the dividend payment date plus the total number of Series C Preferred Stock Post Conversion Dividend Rights issued and outstanding on the dividend payment date. Applicable Percentage means, as to each share of Series C Preferred Stock, 2.5% (0.5625% based on 225 shares issued and outstanding) until total dividends are equal to the total investment in the shares of the Series C Preferred Stock, and 1.25% (0.28125% based on 225 shares issued and outstanding) thereafter. Applicable Percentage means, as to each share of our Series C Preferred Stock, 2.5% until total dividends are equal to the total investment in the shares of the Series C Preferred Stock, and 1.25% thereafter. Such dividends are payable at our option either in cash or in shares of our common stock valued at the higher of (i) $0.50 per share or (ii) the average market price for the 10 consecutive trading days ending immediately prior to the dividend payment date.

Conversion. Each holder of shares of Series C Preferred Stock may convert, at any time, all, but not less than all, of such shares plus accrued and unpaid dividends into shares of our common stock at the price of $1.00 per share of common stock, subject to adjustment in certain events. Subject to the continuing obligation to pay post conversion dividends, as described below under Post Conversion Dividend, we may cause the conversion of all, but not less than all, of the then outstanding shares of Series C Preferred Stock (plus all accrued and unpaid dividends) into common stock, at the applicable conversion price, at any time after the closing price of the common stock is not less than $3.00 per share for 15 consecutive trading days.

Post Conversion Dividend: In the event that the shares of Series C Preferred Stock are converted into common stock by us or a Series C Holder, as the case may be, before the Series C Holder has received the Maximum Payout (defined below), with respect to each such share, simultaneously with such conversion, we will issue to the Series C Holder one Series C Post conversion dividend right, or Post Conversion Dividend Right, for each share of Series C Preferred Stock converted. Each Post Conversion Dividend Right will entitle the holder to receive the dividends described above under Dividends, but without the 6% Floor. Maximum Payout means, as to each share of Series C Preferred Stock, dividends paid in respect of such share of Series C Preferred Stock having an aggregate value of $100,000.

Table of Contents

Redemption. In the event of a sale of the company, we will redeem all of the then outstanding shares of Series C Preferred Stock and Post Conversion Rights for the Redemption Price (defined below), within thirty days after the transaction. The price to redeem a share of Series C Preferred Stock, or the Redemption Price, and each redeemed Post Conversion Right will be equal to (i) (A) the applicable return on investment percentage, or ROI Percentage, increased incrementally on an annual basis, multiplied by (B) $10,000, minus (ii) the cumulative dividends received through the date of redemption. 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,
300%	on or after the third anniversary of the date of issuance,
350%	on or after the fourth anniversary of the date of issuance,
400%	on or after the fifth anniversary of the date of issuance,
450%	on or after the sixth anniversary of the date of issuance,
500%	on or after the seventh anniversary of the date of issuance, and
550%	on or after the eighth anniversary of the date of issuance.

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

Except for shares of Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock, there are no other shares of preferred stock outstanding as of the date of this prospectus.

If we offer a specific series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

- the title and stated value;
- the number of shares offered, the liquidation preference per share, and the purchase price;
- the dividend rate(s), period(s), and/or payment date(s), or method(s) of calculation for such dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into Pro-Pharmaceuticals common stock, and, if applicable, the conversion price (or how it will be calculated) and conversion period;

14

Table of Contents

whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated) and exchange period;

voting rights, if any, of the preferred stock;

a discussion of any material and/or special U.S. federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution, or winding up of the affairs of Pro-Pharmaceuticals; and

any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon liquidation, dissolution, or winding up of Pro-Pharmaceuticals.

Transfer Agent and Registrar. The transfer agent and registrar for any series or class of preferred stock will be set forth in the applicable prospectus supplement.

DESCRIPTION OF WARRANTS

We may issue warrants, preferred stock, common stock, or any combination thereof. We may issue warrants independently or together with any other securities offered by any prospectus supplement and may be attached to or separate from the other offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into by us with a warrant agent. The warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. Further terms of the warrants and the applicable warrant agreements will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement relating to any particular issue of warrants will describe the terms of the warrants, including, as applicable, the following:

the title of the warrants;

the aggregate number of the warrants;

the price or prices at which the warrants will be issued;

the designation, terms and number of shares of preferred stock or common stock or principal amount of debt securities purchasable upon exercise of the warrants;

the designation and terms of the offered securities, if any, with which the warrants are issued and the number of the warrants issued with each offered security;

the date, if any, on and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;

the price at which each share of preferred stock or common stock purchasable upon exercise of the warrants may be purchased or the manner of determining such price;

the date on which the right to exercise the warrants shall commence and the date on which that right shall expire;

the minimum or maximum amount of the warrants which may be exercised at any one time;

Table of Contents

- information with respect to book-entry procedures, if any;
- a discussion of certain federal income tax considerations; and
- any other material terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

We and the warrant agent may amend or supplement the warrant agreement for a series of warrants without the consent of the holders of the warrants issued thereunder to effect changes that are not inconsistent with the provisions of the warrants and that do not materially and adversely affect the interests of the holders of the warrants.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units comprised of one or more shares of common stock, shares of preferred stock and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under Description of Securities and Description of Warrants will apply to each unit and to any common stock, preferred stock or warrant included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust

Table of Contents

company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, the unit agent and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purposes and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

PLAN OF DISTRIBUTION

We may sell the securities covered by this prospectus in any of three ways (or in any combination):

- to or through underwriters or dealers;
- directly to a limited number of purchasers or to a single purchaser; or
- through agents.

Each time we offer and sell securities, we will provide a prospectus supplement that will set forth the terms of the offering of the securities covered by this prospectus, including:

- the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities;
- any underwriting discounts or commissions or agency fees and other items constituting underwriters or agents compensation;
- the initial public offering price of the securities;
- any discounts, commissions or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

Underwriters or dealers may offer and sell the securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. If underwriters or dealers are used in the sale of any securities, the securities will be acquired by such underwriters or dealers for their own account and may be resold from time to time in one or more transactions described above. We may offer the securities to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters or dealers. Subject to certain conditions, the underwriters or dealers will be obligated to purchase all the securities of the series offered by the prospectus supplement. We will describe the nature of any such relationship in the prospectus supplement, naming the underwriter or dealer.

Table of Contents

We may use underwriters with whom we have a material relationship. We may sell the securities through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions we pay to them. Unless the prospectus supplement states otherwise, any agent will be acting on a best efforts basis for the period of its appointment.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The prospectus supplement will set forth the conditions to these contracts and any commissions we pay for solicitation of these contracts.

To comply with applicable state securities laws, the securities offered by this prospectus will be sold, if necessary, in such jurisdictions only through registered or licensed brokers or dealers. In addition, securities may not be sold in some states 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.

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by McCarter & English, LLP of Boston, Massachusetts.

EXPERTS

The consolidated financial statements as of and for the year ended December 31, 2010, incorporated by reference in this Prospectus and Registration Statement have been audited by McGladrey & Pullen, LLP, an independent registered public accounting firm, as stated in their report, 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 as of and for the year ended December 31, 2009, incorporated by reference in this Prospectus and Registration Statement have been audited by Caturano and Company, P.C. (whose name has been changed to Caturano and Company, Inc.), an independent registered public accounting firm, as stated in their report (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.

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.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference information contained in documents that we file with the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 as amended prior to the termination of this offering:

Our Annual Report on Form 10-K for the year ended December 31, 2010, filed with the SEC on March 15, 2011;

Table of Contents

Our Current Reports on Form 8-K filed with the SEC on January 6, 2011, January 14, 2011, January 27, 2011; February 10, 2011, March 9, 2011, and March 14, 2011.

The description of our common stock contained in our registration statement on Form 8-A filed with the SEC on September 9, 2003, including any amendments or reports filed for the purpose of updating that description.

You may request, orally or in writing, a copy of these documents, which will be provided to you at no cost, by contacting:

Pro-Pharmaceuticals, Inc.

7 Wells Avenue

Newton, Massachusetts 02459

Attention: Anthony D. Squeglia, Chief Financial Officer

Tel.: (617) 559-0033

E-mail: squeglia@pro-pharmaceuticals.com

Table of Contents

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all costs and expenses to be incurred by Pro-Pharmaceuticals in connection with the preparation and filing of this Registration Statement. All amounts shown are estimates except for the SEC registration fee. We will pay all expenses in connection with the distribution of the shares of common stock being registered hereby.

SEC Registration Fee	$ 5,805
Accountants Fees and Expenses	6,000
Legal Fees and Expenses	15,000
Transfer Agent Fees and Expenses	1,000
Miscellaneous	1,195
Total Expenses	$ 29,000

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.

Table of Contents

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.

Table of Contents

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).

Exhibit

Number	**Description of Document**	
1.1*	Form of Underwriting Agreement.	
3.1	Articles of Incorporation of Pro Pharmaceuticals, Inc., dated January 23, 2001, as filed with the Secretary of State of the State of Nevada.	1
3.2	Certificate of Amendment to Articles of Incorporation of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on May 28, 2004.	2
3.3	Certificate of Designation of Preferences, Rights and Limitations of Series A 12% Convertible Preferred Stock of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on October 5, 2007.	3
3.4	Certificate of Amendment to Articles of Incorporation of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on May 29, 2008.	4
3.5	Certificate of Amendment to Articles of Incorporation of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on May 27, 2009.	5
3.6	Certificate of Amendment with respect to the Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock of Pro-Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on January 26, 2011.	6
3.7	Certificate of Designation of Preferences, Rights and Limitations of Series C Super Dividend Convertible Preferred Stock of Pro-Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on December 30, 2010.	7
3.9	Amended and Restated Bylaws of Pro-Pharmaceuticals, Inc.	8
3.10	Amendment to Amended and Restated Bylaws of Pro-Pharmaceuticals, Inc	9
4.1*	Certificate of Designation of Preferred Stock	
4.2*	Form of Warrant	

Table of Contents

5	Opinion of McCarter English, LLP (including the consent of such firm) regarding the legality of the securities being offered	
10.1	Form of Non-Qualified Stock Option Agreement for Peter G. Traber	10
10.2	Amended and Restated Employment Agreement dated March 8, 2011 between Anthony D. Squeglia and Pro Pharmaceuticals, Inc.	11
10.3	Amended and Restated Employment Agreement dated March 8, 2011 between Maureen Foley and Pro Pharmaceuticals, Inc.	12
23.1	Consent of McCarter English, LLP (included as part of Exhibit 5 hereto)	
23.2	Consent of McGladrey & Pullen LLP, an independent registered public accounting firm	
23.3	Consent of Caturano and Company, Inc., an independent registered public accounting firm	
24	Powers of Attorney (included on signature page)	

* To be filed, if necessary, subsequent to the effectiveness of this registration statement by an amendment to this registration statement or incorporated by reference pursuant to a Current Report of Form 8-K in connection with an offering of securities

1. Incorporated by reference to the Company s Registration Statement on Form 10-SB, as filed with the Commission on June 13, 2001.
2. Incorporated by reference to the Company s Quarterly Report on Form 10-Q filed with the Commission on August 16, 2004.
3. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on October 9, 2007.
4. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on June 2, 2008.
5. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on May 28, 2009.
6. Incorporated by reference to the Company s Quarterly Report on Form 10-Q filed with the Commission on January 27, 2011.
7. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on January 6, 2011.
8. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on December 17, 2007
9. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on April 14, 2008
10. Incorporated by reference to the Company s Current Report on Form 8-K as filed with the Commission on March 9, 2011.
11. Incorporated by reference to the Company s Current Report on Form 8-K as filed with the Commission on March 14, 2011.
12. Incorporated by reference to the Company s Current Report on Form 8-K as filed with the Commission on March 14, 2011.

UNDERTAKINGS

The undersigned Registrant hereby undertakes:

(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 of 1933, as amended (the Securities Act);

(ii) To reflect in the prospectus any facts or events arising after the effective date of this 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 this Registration Statement. Notwithstanding the foregoing, any increase or decrease in the

Table of Contents

volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent 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 this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), that are incorporated by reference in this Registration Statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the Registration Statement.

(2) That, for the purposes 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 the offering of such securities at the 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 the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) If the Registrant is relying on Rule 430B:

(A) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *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 effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the Registrant is subject to Rule 430C, 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 statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

Table of Contents

(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 such 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, such 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 the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the 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 the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant s annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act) that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the indemnification provisions described herein, 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 and is, therefore, unenforceable. In the event that 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 such director, officer or controlling person in connection with the securities being registered, 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.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements of filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Newton, Massachusetts, on March 16, 2011.

PRO-PHARMACEUTICALS, INC.
Registrant

By: /s/ Theodore D. Zucconi
Theodore D. Zucconi
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Theodore D. Zucconi and/or Maureen Foley his true and lawful attorney-in-fact and agent with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities to sign any or all amendments (including, without limitation, post-effective amendments) to this Registration Statement, any related Registration Statement filed pursuant to Rule 462(b) under the Securities Act of 1933 and any or all pre- or post-effective amendments thereto, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming that said attorney-in-fact and agent, or any substitute or substitutes for him, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ THEODORE D. ZUCCONI **Theodore D. Zucconi, Ph.D.**	Chief Executive Officer and Director (Principal Executive Officer)	March 16, 2011
/s/ ANTHONY D. SQUEGLIA **Anthony D. Squeglia**	Chief Financial Officer (Principal Financial and Accounting Officer)	March 16, 2011
/s/ JAMES C. CZIRR **James C. Czirr**	Director and Executive Chairman	March 16, 2011
/s/ ROD D. MARTIN **Rod D. Martin, J.D.**	Director and Vice Chairman	March 16, 2011
/s/ GILBERT F. AMELIO **Gilbert F. Amelio, Ph.D.**	Director	March 16, 2011
/s/ ARTHUR R. GREENBERG **Arthur R. Greenberg**	Director	March 16, 2011
/s/ S. COLIN NEILL **S. Colin Neill**	Director	March 16, 2011
/s/ STEVEN PRELACK	Director	March 16, 2011

Steven Prelack		
/s/ JERALD K. ROME **Jerald K. Rome**	Director	March 16, 2011
/s/ PETER G. TRABER **Peter G. Traber, M.D.**	Director	March 16, 2011

Table of Contents

EXHIBIT INDEX

1.1*	Form of Underwriting Agreement.	
3.1	Articles of Incorporation of Pro Pharmaceuticals, Inc., dated January 23, 2001, as filed with the Secretary of State of the State of Nevada.	1
3.2	Certificate of Amendment to Articles of Incorporation of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on May 28, 2004.	2
3.3	Certificate of Designation of Preferences, Rights and Limitations of Series A 12% Convertible Preferred Stock of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on October 5, 2007.	3
3.4	Certificate of Amendment to Articles of Incorporation of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on May 29, 2008.	4
3.5	Certificate of Amendment to Articles of Incorporation of Pro Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on May 27, 2009.	5
3.6	Certificate of Amendment with respect to the Amended and Restated Certificate of Designation of Preferences, Rights and Limitations of Series B-1 Convertible Preferred Stock and Series B-2 Convertible Preferred Stock of Pro-Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on January 26, 2011.	6
3.7	Certificate of Designation of Preferences, Rights and Limitations of Series C Super Dividend Convertible Preferred Stock of Pro-Pharmaceuticals, Inc., as filed with the Secretary of State of the State of Nevada on December 30, 2010.	7
3.9	Amended and Restated Bylaws of Pro-Pharmaceuticals, Inc.	8
3.10	Amendment to Amended and Restated Bylaws of Pro-Pharmaceuticals, Inc	9
4.1*	Certificate of Designation of Preferred Stock	
4.2*	Form of Warrant	
5	Opinion of McCarter English, LLP (including the consent of such firm) regarding the legality of the securities being offered	
10.1	Non-Qualified Stock Option Agreement for Peter G. Traber dated March 7, 2011	10
10.2	Amended and Restated Employment Agreement dated March 8, 2011 between Anthony D. Squeglia and Pro Pharmaceuticals, Inc.	11
10.3	Amended and Restated Employment Agreement dated March 8, 2011 between Maureen Foley and Pro Pharmaceuticals, Inc.	12
23.1	Consent of McCarter English, LLP (included as part of Exhibit 5 hereto)	
23.2	Consent of McGladrey & Pullen LLP, an independent registered public accounting firm	
23.3	Consent of Caturano and Company, Inc., an independent registered public accounting firm	
24	Powers of Attorney (included on signature page)	

* To be filed, if necessary, subsequent to the effectiveness of this registration statement by an amendment to this registration statement or incorporated by reference pursuant to a Current Report of Form 8-K in connection with an offering of securities

1. Incorporated by reference to the Company s Registration Statement on Form 10-SB, as filed with the Commission on June 13, 2001.
2. Incorporated by reference to the Company s Quarterly Report on Form 10-Q filed with the Commission on August 16, 2004.
3. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on October 9, 2007.

Table of Contents

4. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on June 2, 2008.
5. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on May 28, 2009.
6. Incorporated by reference to the Company s Quarterly Report on Form 10-Q filed with the Commission on January 27, 2011.
7. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on January 6, 2011.
8. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on December 17, 2007
9. Incorporated by reference to the Company s Current Report on Form 8-K filed with the Commission on April 14, 2008
10. Incorporated by reference to the Company s Current Report on Form 8-K as filed with the Commission on March 9, 2011.
11. Incorporated by reference to the Company s Current Report on Form 8-K as filed with the Commission on March 14, 2011.
12. Incorporated by reference to the Company s Current Report on Form 8-K as filed with the Commission on March 14, 2011.