PALATIN TECHNOLOGIES INC
Form 424B5
June 28, 2010

PROSPECTUS SUPPLEMENT
To Prospectus dated November 27, 2007

Filed pursuant to Rule 424(b)(5)
Registration File No. 333-146392

PALATIN TECHNOLOGIES, INC.

10,000,000 Shares of Common Stock

Warrants to Purchase 1,400,000 Shares of Common Stock

Pursuant to this prospectus supplement and the accompanying prospectus, we are offering up to 10,000,000 shares of our common stock and warrants to purchase up to 1,400,000 shares of our common stock. Of the 11,400,000 shares of our common stock, 10,000,000 shares are to be issued directly to the purchasers at the closing of the offering and the remaining 1,400,000 are issuable upon exercise of the warrants. The common stock and warrants will be sold in units, with each unit consisting of one share of common stock and a warrant exercisable for 0.14 shares of our common stock. Each unit will be sold at a negotiated price of $0.20 per unit. Units will not be issued or certificated. The shares of common stock and warrants are immediately separable and will be issued separately. The warrants are exercisable immediately upon issuance and expire one year from the date of issuance. For a more detailed description of our common stock and warrants, see the section entitled “Description of the Securities We are Offering” beginning on page S-21 of this prospectus supplement.

Our common stock is quoted on the NYSE Amex under the symbol PTN. On June 24, 2010, the closing price of the common stock was $0.27. As of May 12, 2010, the aggregate market value of our outstanding common stock held by non-affiliates was $33,834,330, based on 105,732,282 shares of outstanding common stock held by non-affiliates, and a per share price of $0.32 based on the closing sale price of our common stock on that date. Pursuant to General Instruction I.B.6. of Form S-3, during the period of 12 calendar months immediately prior to the date of this prospectus supplement, we have offered securities with an aggregate market value of $8,826,080, consisting of the offer and sale of (i) 9,484,848 shares of our common stock and warrants exercisable for 3,319,697 shares of our common stock that we issued in our offering that closed on August 17, 2009 and (ii) 9,629,629 shares of our common stock and warrants exercisable for 6,355,554 share of our common stock that we issued in our offering that closed on March 2, 2010.

We have retained Rodman & Renshaw, LLC to act as our exclusive placement agent for the sale of the units. The placement agent is not required to arrange for the sale of any specific number of units or dollar amount but will use its reasonable best efforts to arrange for the sale of all of the units. We have agreed to pay the placement agent the placement agent fees set forth in the table below, which assumes that we sell all of the units we are offering.

Investing in our securities involves a high degree of risk. You should purchase these units only if you can afford a complete loss of your investment. See “Risk Factors” beginning on page S-8 of this prospectus supplement.

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

	Per Unit	Maximum Offering Amount
Public offering price	$ 0.20	$2,000,000
Placement agent fees (1)	$ 0.01	$120,000

Proceeds to us, before expenses	$ 0.19	$1,880,000

(1) We have also agreed to issue the placement agent warrants to purchase common stock and to reimburse the placement agent for certain of its expenses as described under “Plan of Distribution” in this prospectus supplement.

We estimate the total expenses of this offering, excluding the placement agent fees, will be approximately $50,000. Because there is no minimum offering amount required as a condition to closing in this offering, the actual offering amount, the placement agent fees and net proceeds to us, if any, in this offering may be substantially less than the maximum offering amounts set forth above.

Rodman & Renshaw, LLC

The date of this prospectus supplement is June 25, 2010

TABLE OF CONTENTS

Prospectus Supplement

Prospectus

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus or information incorporated by reference herein. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on the front of those documents or that any document incorporated by reference is accurate as of any date other than its filing date. You should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

This prospectus supplement is part of a registration statement that we have filed with the Securities and Exchange Commission (the SEC) utilizing a “shelf” registration process. Under this shelf registration process, we are offering to sell our common stock and warrants to purchase our common stock, which we refer herein collectively as the securities, using this prospectus supplement and the accompanying prospectus. In this prospectus supplement, we

provide you with specific information about the securities that we are selling in this offering. Both this prospectus supplement and the accompanying prospectus include important information about us, our securities being offered and other information you should know before investing. This prospectus supplement also adds updates and changes information contained in the accompanying prospectus. You should read both this prospectus supplement and the accompanying prospectus as well as additional information described under "Incorporation of Information by Reference" on page S-26 of this prospectus supplement and page 9 of the accompanying prospectus before investing in our securities.

Unless we have indicated otherwise or the context otherwise requires references in the prospectus supplement and the accompanying prospectus to "Palatin," the "Company," "we," "us" and "our" or similar terms are to Palatin Technologies, Inc. and its subsidiary.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information appearing elsewhere in this prospectus supplement and in the accompanying prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information you should consider prior to investing. After you read this summary, you should read and consider carefully the more detailed information and financial statements and related notes that we include in and/or incorporate by reference into this prospectus supplement and the accompanying prospectus, especially the section entitled “Risk Factors.” If you invest in our securities, you are assuming a high degree of risk.

Overview

We are a biopharmaceutical company dedicated to the development of peptide, peptide mimetic and small molecule agonist compounds with a focus on melanocortin and natriuretic peptide receptor systems. We have a diverse pipeline of active development programs targeting melanocortin and natriuretic receptors, including development of proposed products for treatment of sexual dysfunction, heart failure, hypertension, acute asthma, obesity, diabetes and metabolic syndrome.

We currently have the following active drug development programs:

- Bremelanotide, a peptide melanocortin receptor agonist, for treatment of sexual dysfunction, targeting erectile dysfunction (ED) in patients non-responsive to current therapies and female sexual dysfunction (FSD).
- PL-6983, a peptide melanocortin receptor agonist, for treatment of sexual dysfunction.
- PL-3994, a peptide mimetic natriuretic peptide receptor A (NPR-A) agonist, for treatment of heart failure, refractory or difficult-to-control hypertension and acute severe asthma.
- Melanocortin receptor-based compounds for treatment of obesity, diabetes and related metabolic syndrome pursuant to a research collaboration and global license with AstraZeneca AB (AstraZeneca).

Key elements of our business strategy include: using our technology and expertise to develop and commercialize therapeutic products; entering into alliances and partnerships with pharmaceutical companies to facilitate the development, manufacture, marketing, sale and distribution of product candidates we are developing; partially funding our development and discovery programs with the cash flow from our AstraZeneca collaboration agreement and any future agreements with other companies; and, depending on the availability of sufficient funding, expanding our pipeline by using our expertise in drug discovery technologies for melanocortin and natriuretic peptide receptor systems and acquiring synergistic products and technologies.

Melanocortin Receptor-Specific Programs

The melanocortin system is involved in a large and diverse number of physiologic functions, and therapeutic agents modulating this system may have the potential to treat a variety of conditions and diseases, including sexual dysfunction, obesity and related disorders, ischemia–reperfusion injury (injury resulting from inadequate blood flow or reintroduction of blood flow), hemorrhagic shock and inflammation-related diseases.

Bremelanotide for Sexual Dysfunction. We are developing subcutaneously administered bremelanotide for the treatment of ED and FSD. Bremelanotide, a melanocortin agonist (which promotes a biologic function response) drug

candidate, is a synthetic peptide analog of the naturally occurring hormone alpha-MSH (melanocyte-stimulating hormone).

Medical Need - ED and FSD. ED is the consistent inability to attain and maintain an erection sufficient for sexual intercourse. The condition is correlated with increasing age, cardiovascular disease, hypertension, diabetes, hyperlipidemia and smoking. In addition, certain prescription drugs and psychogenic issues may contribute to ED.

Table of Contents

According to the Massachusetts Male Aging Study, more than 50% of men aged 40-70 report episodes of ED and more than 30 million men in the United States may be afflicted with some form of ED, with less than 20% seeking treatment. The incidence of ED increases with age. Studies show that chronic ED affects about 5% of men in their 40s and 15% to 25% of men by the age of 65. The current market size for ED is more than $2.5 billion per year.

Phosphodiesterase-5 (PDE-5) inhibitors such as sildenafil (Viagra®), vardenafil (Levitra®) and tadalafil (Cialis®) are used to treat ED, but an estimated 35% of ED patients are non-responsive to PDE-5 inhibitor therapy. There are limited therapeutic options for ED patients non-responsive to PDE-5 inhibitor therapy, including alprostadil for direct penis injection or urethral suppositories, surgical penile implants and various devices.

FSD is a multifactorial condition that has anatomical, physiological, medical, psychological and social components. Studies estimate FSD is prevalent in approximately 50% of women over the age of 30 and that more than 35 million women in the United States may be afflicted with some form of FSD. FSD includes disorders associated with desire, arousal, orgasm and pain.

There are no drugs in the United States approved for FSD indications.

Mechanisms of Action with Bremelanotide. Bremelanotide is believed to act through activation of melanocortin receptors in the central nervous system, which is a different mechanism of action from currently marketed PDE-5 inhibitor ED therapies that act directly on the vascular system. Studies have demonstrated efficacy with bremelanotide in patients non-responsive to PDE-5 inhibitor therapies. Studies have also demonstrated an additive effect in patients co-administered both bremelanotide and a PDE-5 inhibitor.

Clinical Trials with Intranasal Formulations. We extensively studied bremelanotide for sexual dysfunction in nasal formulations, administered as a single spray in one nostril. Increases in blood pressure were observed in some patients receiving nasally administered bremelanotide, and this observed increase was a significant factor leading us to discontinue work on nasally administered bremelanotide as a first-line therapy for sexual dysfunction. We believe that increases in blood pressure, as well as the rate of nausea and emesis (vomiting), were due, at least partially, to variability in drug uptake with nasal administration. Studies showed significant variation in plasma levels of bremelanotide in patients receiving nasally administered bremelanotide.

While we are no longer developing intranasal formulations of bremelanotide for commercialization, trials with intranasal formulations of bremelanotide did demonstrate potential utility of bremelanotide. Phase 2B double blind, placebo-controlled, parallel doses clinical trials evaluating nasal bremelanotide for ED, conducted in 726 non-diabetic and 294 diabetic patients, showed that over 30% of ED patients were restored to a normal level of function. Phase 2A clinical trials of post-menopausal FSD patients showed a statistically significant increase in the level of sexual desire and genital arousal in subjects receiving nasal bremelanotide compared to subjects receiving placebo and, in pre-menopausal FSD patents, a trend to increases in the level of sexual desire and genital arousal in subjects receiving nasal bremelanotide compared to subjects receiving placebo. In trials conducted to date, almost 2,000 patients received at least one dose of bremelanotide, with about 1,500 receiving multiple doses.

Subcutaneous Administration of Bremelanotide. In a Phase 1 clinical trial designed to evaluate the blood pressure effects of subcutaneously administered bremelanotide, no statistically significant difference in mean changes in blood pressure was seen in subjects receiving bremelanotide compared to placebo. No subject discontinued participation in the study as a result of protocol stopping rules based on blood pressure changes. In addition, there was no difference in the incidence of emesis in subjects receiving bremelanotide compared to placebo. This Phase 1 trial was a two-week, randomized, double-blind, placebo-controlled study in subjects who received 45 repeat doses of bremelanotide or placebo subcutaneously. Each administered dose of bremelanotide achieved plasma levels shown to

be efficacious for improving erectile function in multiple previous Phase 1 and Phase 2 erectile dysfunction studies.

With subcutaneous administration of bremelanotide variability in plasma exposure was significantly decreased. This study supports the hypothesis that increases in blood pressure seen with nasally administered

Table of Contents

bremelanotide were due, at least partially, to variability in drug uptake, with increases in blood pressure in patients with greater uptake.

We have completed patient dosing and database lock in a placebo-controlled, multiple dose safety study of subcutaneously administered bremelanotide in men between 45 and 65 years old, and assuming a favorable outcome in this study and the concurrence of the U. S. Food and Drug Administration (FDA), thereafter initiate a Phase 2 clinical trial in ED patients non-responsive to PDE-5 inhibitors. We anticipate that top-line results will be reported in the third quarter of calendar 2010.

Injection sites for subcutaneous injection of bremelanotide include the abdomen, thigh and upper arms. We are exploring various delivery devices for subcutaneous administration. We believe that fine needle devices, pen injectors and needle-free injector systems can be used for subcutaneous administration of bremelanotide, and are evaluating various delivery devices for potential commercialization. If Phase 2 clinical trials are successful, we anticipate that Phase 3 clinical trials will be conducted with a delivery device intended for commercialization.

PL-6983 for Treatment of Sexual Dysfunction. PL-6983 is our lead alternative compound for sexual dysfunction in a new series of melanocortin receptor-specific peptides we have developed. We have demonstrated efficacy of PL-6983 in inducing erections in animal models.

In developing PL-6983, we used a novel screening platform that examined the effectiveness of peptides in animal models of sexual response and also determined cardiovascular effects, primarily looking at changes in blood pressure. In these animal models, PL-6983 resulted in significantly smaller increases in blood pressure at doses effective for a sexual response than increases in blood pressure in the same models seen with comparably effective doses of bremelanotide.

We are planning preclinical toxicology and other studies required by the FDA prior to initiating human clinical trials. Initial human clinical trials will be designed to measure safety parameters, including changes in blood pressure following administration.

Obesity. In 2007, we entered into an exclusive global licensing and research collaboration agreement with AstraZeneca to discover, develop and commercialize compounds that target melanocortin receptors for the treatment of obesity, diabetes and related metabolic syndrome. In June and December 2008 and in September 2009, the collaboration agreement was amended to include additional compounds and associated intellectual property we developed and to modify royalty rates and milestone payments.

Obesity is a multifactorial condition with significant biochemical components relating to satiety (feeling full), energy utilization and homeostasis. A number of different metabolic and hormonal pathways are being evaluated by companies around the world in efforts to develop better treatments for obesity. Scientific research has established that melanocortin receptors have a role in eating behavior and energy homeostasis, and that some melanocortin receptor agonists decrease food intake and induce weight loss.

Obesity is a significant healthcare issue, often correlated with a variety of cardiovascular and other diseases, including diabetes. More than 1.1 billion adults and over 150 million children worldwide are overweight, with over 300 million adults categorized as obese. According to the American Obesity Association, obesity is the second leading cause of preventable death after smoking and nearly one-third of adults in the United States are obese. Increased mortality, high blood pressure, diabetes and other substantial health risks are associated with being overweight and obese. Over 2.6 million deaths are attributed to diabetes each year worldwide and almost $120 billion is spent on related costs of obesity, according to the U.S. Surgeon General.

We have developed classes of small molecule and peptide compounds targeting melanocortin receptors which are effective in the treatment of obesity in animal models. Certain of these compounds have been demonstrated to be effective in normal diet-induced obese and genetically obese animal models for decreasing food intake and body weight, without an increase in sexual response in normal animals at the same or higher dose levels. During 2009, pursuant to an agreement with AstraZeneca we conducted a proof-of-principle clinical study on the

Table of Contents

effects of a melanocortin receptor-specific compound on food intake, obesity and other metabolic parameters, and have agreed to conduct additional related studies.

Pursuant to the terms of the agreement with AstraZeneca, we have received up-front payments totaling $11.6 million and milestone and other payments totaling $10.0 million from AstraZeneca. We are eligible for milestone payments totaling up to $145 million, with up to $85 million contingent upon development and regulatory milestones and the balance on achievement of sales targets, plus royalties on sales of approved products. AstraZeneca has responsibility for product commercialization, product discovery and development costs. We provide certain scientific expertise in the research collaboration at a negotiated rate.

Other Melanocortin Programs. We have early stage research and discovery programs exploring additional indications and targets. These programs include development of highly-selective melanocortin-1 and melanocortin-3 receptor agonists for treatment of inflammation-related diseases and disorders, melanocortin-4 receptor antagonists for treatment of cachexia and melanocortin-4 receptor agonists for prevention of organ damage, particularly kidney damage. We do not anticipate that any of these programs will advance to clinical trials during the next twelve months.

Natriuretic Peptide Receptor-Specific Programs

The natriuretic peptide receptor system has numerous cardiovascular functions, and therapeutic agents modulating this system may be useful in treatment of heart failure, hypertension, acute asthma and other cardiovascular diseases.

PL-3994. PL-3994 is an NPR-A agonist compound in development for treatment of HF, refractory hypertension and acute severe asthma. PL-3994 activates NPR-A, a receptor known to play a role in cardiovascular homeostasis. PL-3994 increases plasma cyclic guanosine monophosphate (cGMP) levels, a pharmacological response consistent with the effects of endogenous (naturally produced) natriuretic peptides on cardiovascular function. PL-3994 also decreases activity of the renin-angiotensin-aldosterone system (RAAS), a hormone system that regulates blood pressure and fluid balance. The RAAS system is frequently over-activated in HF patients, leading to worsening of cardiovascular function.

PL-3994 is one of a number of natriuretic peptide receptor agonist compounds we have developed. PL-3994 is a synthetic molecule incorporating a novel and proprietary amino acid mimetic structure. It has an extended half-life, with reduced affinity for endogenous natriuretic peptide clearance receptors and significantly increased resistance to neutral endopeptidase, an endogenous enzyme that degrades natriuretic peptides.

PL-3994 for Heart Failure. Heart failure is an illness in which the heart is unable to pump blood efficiently, and includes acutely decompensated HF with dyspnea (shortness of breath) at rest or with minimal activity. Endogenous natriuretic peptides have a number of beneficial effects, including vasodilation (relaxation of blood vessels), natriuresis (excretion of sodium), and diuresis (excretion of fluids).

Patients who have been admitted to the hospital with an episode of worsening HF have an increased risk of either death or hospital readmission in the three months following discharge. Up to 15% of patients die in this period and as many as 30% need to be readmitted to the hospital. We believe that decreasing mortality and hospital readmission in patients discharged following hospitalization for worsening HF is a large unmet medical need for which PL-3994 may be effective. PL-3994 would be utilized as an adjunct to existing HF medications, and may, if successfully developed, be self-administered by patients as a subcutaneous injection following hospital discharge. We believe that PL-3994, through activation of NPR-A, will, if successful, reduce cardiac hypertrophy (increase in heart size due to disease), which is an independent risk factor for cardiovascular morbidity and mortality.

Over 5.7 million Americans suffer from HF, with 670,000 new cases of HF diagnosed each year, with disease incidence expected to increase with the aging of the American population. Despite the treatment of HF with multiple drugs, almost all HF patients will experience at least one episode of acute HF that requires treatment with intravenous medications in the hospital. Heart failure has tremendous human and financial costs. Estimated direct

Table of Contents

costs in the U.S. for HF are $37.2 billion in 2009, with HF constituting the leading cause of hospitalization in people over 65 years of age, with over 1.1 million hospital discharges for HF in 2006. Heart failure is also a high mortality disease, with approximately one-half of HF patients dying within five years of initial diagnosis.

We have planned a repeat dose Phase 2 clinical trial in patients hospitalized with HF, which will evaluate safety profiles in patients given repeat doses of PL-3994 as well as pharmacokinetic (period to metabolize or excrete the drug) and pharmacodynamic (period of action or effect of the drug) endpoints, but have not determined when this trial will commence.

PL-3994 for Refractory Hypertension. PL-3994 is also being developed for treatment of refractory or difficult-to-control hypertension, which is high blood pressure despite a three-drug regimen that includes a diuretic. Refractory hypertension is commonly found in patients with congestive HF or renal disease. While there are a large number of approved drugs for treatment of hypertension, there are no approved drugs for hypertension that are active through the NPR-A system. Refractory and other difficult-to-control hypertension can be caused by increased aldosterone levels. PL-3994 is believed to act through the NPR-A system and RAAS to decrease renin and aldosterone secretion and thereby decrease blood pressure. In a Phase 2A study of subjects with controlled hypertension, the data suggested an increased effect of PL-3994 in reducing systemic blood pressure when taken with an angiotensin-converting enzyme inhibitor, a common class of drugs for controlling hypertension.

PL-3994 for Acute Severe Asthma. We are exploring use of PL-3994 for treatment of acute severe asthma, which is asthma not responsive to therapy with beta-2 adrenergic receptor agonists such as inhaled albuterol. NPR-A agonism is known to relax smooth muscles in airways and works through a pathway independent of the beta-2 adrenergic receptor. If we proceed with development of PL-3994 for treatment of acute severe asthma, we anticipate that initial clinical studies will be conducted with the current subcutaneous formulation, and that if data supports further studies we may develop an inhaled or other local delivery formulation.

Clinical Studies with PL-3994. Preclinical studies in animals established a dose-dependent effect on blood pressure and diuresis, and in animal models of HF showed improved kidney function and prevention of cardiac hypertrophy. Safety toxicology studies were conducted in animals prior to filing an Investigational New Drug (IND) application with the FDA.

Human clinical studies of PL-3994 commenced with a Phase 1 trial which concluded in the first quarter of calendar year 2008. This was a randomized, double-blind, placebo-controlled, study in 26 healthy volunteers who received either PL-3994 or a placebo subcutaneously. The evaluations included safety, tolerability, pharmacokinetics and several pharmacodynamic endpoints, including levels of cGMP, a natural messenger nucleotide. Dosing concluded with the successful achievement of the primary endpoint of the study, a prespecified reduction in systemic blood pressure. No volunteer experienced a serious or severe adverse event. Elevations in plasma cGMP levels, increased diuresis and increased natriuresis were all observed for several hours after single subcutaneous doses.

In the second quarter of calendar year 2008, we conducted a Phase 2A trial in volunteers with controlled hypertension who were receiving one or more conventional antihypertensive medications. In this trial, which was a randomized, double-blind, placebo-controlled, single ascending dose study in 21 volunteers, the objective was to demonstrate that PL-3994 can be given safely to patients taking antihypertensive medications commonly used in HF and hypertension patients. Dosing concluded with the successful achievement of the primary endpoint of the study, a prespecified reduction in systemic blood pressure. No volunteer experienced a serious or severe adverse event. Elevations in plasma cGMP levels were observed for several hours after single subcutaneous doses.

PL-3994 is being developed as a subcutaneously administered drug, and is well absorbed through this route of administration. In human studies, the pharmacokinetic and pharmacodynamic half-lives were on the order of hours, significantly longer than the comparable half-lives of endogenous natriuretic peptides. We believe that PL-3994, if successful, will be amenable to self-administration by patients, similar to insulin and other self-administered drugs.

Table of Contents

Other Natriuretic Peptide Receptor-Specific Programs. We have early stage discovery and development programs in the natriuretic peptide receptor field, including compounds with varied pharmacology, including compounds with increased diuretic effect and decreased effect on blood pressure, and compounds effective at more than one natriuretic peptide receptor.

Other Programs

We previously marketed NeutroSpec®, a radiolabeled monoclonal antibody product for imaging and diagnosing infection, which is the subject of a strategic collaboration agreement with the Mallinckrodt division of Covidien Ltd. We have suspended marketing, clinical trials and securing regulatory approvals of NeutroSpec, and do not anticipate conducting any substantive work or incurring substantial expenditures on NeutroSpec over the next twelve months.

Corporate Information

Our corporate offices and research and development facilities are located at 4C Cedar Brook Drive, Cedar Brook Corporate Center, Cranbury, NJ 08512. Our telephone number is (609) 495-2200.

Common stock offered by us	10,000,000 shares directly 1,400,000 shares issuable upon exercise of warrants
Warrants	Warrants to purchase an aggregate of 1,400,000 shares of common stock will be offered in this offering, exercisable immediately upon issuance and at any time up to the date that is one year after such date of issuance at an exercise price of $0.20 per share of common stock.
Common stock outstanding before this offering	107,028,183 shares
Common stock to be outstanding after this offering	117,028,183 shares
Use of proceeds	We intend to use the net proceeds from this offering to support clinical studies with PL-3994 and for general corporate purposes, including our internal discovery and development programs and general working capital. See “Use of Proceeds” on page S-19.
NYSE Amex symbol	PTN

The Offering

Our common stock to be outstanding after this offering is based on 107,028,183 shares outstanding as of June 24, 2010 and the 10,000,000 shares of common stock being issued directly in the offering, and excludes the following as of that date:

- 9,573,735 shares of common stock issuable upon the exercise of outstanding options at a weighted-average exercise price of $1.32 per share;
- 4,590,060 shares of common stock available for issuance under our 2005 Stock Plan;

Table of Contents

- 15,854,566 shares of common stock issuable upon the exercise of outstanding warrants at a weighted-average exercise price of $0.84 per share, including the warrants to purchase 1,400,000 shares of common stock offered hereby and warrants to purchase 500,000 shares of common stock issuable to the placement agent; and

- 248,606 shares of common stock, subject to adjustment, that are issuable upon the conversion of 4,997 shares of Series A Convertible preferred stock that are issued and outstanding.

Table of Contents

RISK FACTORS

You should carefully consider the risks described below and other information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference before deciding to invest in our securities. These risks should be considered in conjunction with any other information included or incorporated by reference herein, including in conjunction with forward-looking statements made herein. See "Where You Can Find More Information" on page S-25. If any of the following risks actually occur, they could materially adversely affect our business, financial condition, operating results or prospects. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also impair our business, financial condition, operating results and prospects.

Risks Related to this Offering

Investors in this offering may suffer immediate dilution.

As of March 31, 2010, we had a net tangible book value of $11.6 million which yields a net tangible book value of approximately $0.11 per share of common stock, assuming the conversion of all then convertible preferred stock and no exercise of any warrants or options. The net tangible book value per share is less than the current market price per share. If you pay more than the net tangible book value per share for stock in this offering, you will suffer immediate dilution.

As of June 24, 2010, there were 23,776,907 shares of common stock underlying outstanding dilutive securities, excluding any securities to be issued in this offering, which if exercised or converted could decrease the value of your shares.

As of June 24, 2010, holders of our outstanding dilutive securities had the right to acquire the following amounts of underlying common stock:

- 248,606 shares issuable on the conversion of immediately convertible Series A Convertible preferred stock, subject to adjustment, for no further consideration;
- 13,954,566 shares issuable on the exercise of warrants, at exercise prices ranging from $0.27 to $4.00 per share; and
- 9,573,735 shares issuable on the exercise of stock options, at exercise prices ranging from $0.13 to $5.13 per share.

If the holders convert or exercise those securities, or similar dilutive securities we may issue in the future, you may experience dilution in the net tangible book value of your common stock. In addition, the sale or availability for sale of the underlying shares in the marketplace could depress our stock price. We have registered or agreed to register for resale substantially all of the underlying shares listed above. Holders of registered underlying shares could resell the shares immediately upon issuance, resulting in significant downward pressure on our stock.

We will have broad discretion over the use of the proceeds of this offering and may not realize a return.

We will have considerable discretion in the application of the net proceeds of this offering. We have not determined the amount of net proceeds that we will apply to various corporate purposes. We may use the net proceeds for purposes that do not yield a significant return, if any, for our stockholders.

We expect that we will need to continue to raise funds in the future, and funds may not be available on acceptable terms, or at all.

We expect that the proceeds of this offering together with our existing cash and cash equivalents, available-for-sale investments, other current assets and projected revenue will provide sufficient working capital to fund our

Table of Contents

operations through the balance of this calendar year. In order to maintain our presently anticipated operations, we will need to raise additional funds. As of March 31, 2010, we had cash and cash equivalents of $6.8 million and available-for-sale investments of $3.4 million, with receivables of $0.5 million and current liabilities of $2.2 million.

We may raise additional funds through public or private equity financings, collaborative arrangements on our product candidates or from other sources. However, additional funding may not be available on acceptable terms, or at all. If adequate funds are not available, we will need to further curtail operations significantly, including the delay, modification or cancelation of operations and plans, including preclinical studies and clinical trials, related to bremelanotide, PL-3994 and PL-6983. To obtain additional funding, we may need to enter into arrangements that require us to develop only certain of our product candidates or relinquish rights to certain technologies, product candidates and/or potential markets.

Based upon the recent price of our common stock on the NYSE Amex LLC (the NYSE Amex), even if we are able to raise additional capital it is likely that our existing stockholders will experience substantial dilution.

We will almost certainly need to sell a significant amount of equity securities, whether in the form of new shares of common stock or some other form of convertible security, in order to raise any meaningful amount of capital, based upon our recent stock price. Any significant sale of equity securities in any form at these prices will result in significant dilution to our existing stockholders, including purchasers under this offering. The prospect of this dilution is likely to continue to have a negative effect on the market price and trading volume of our common stock until such time as an actual financing occurs.

Risks Relating to our Company and Holders of our Common Stock

We expect to continue to incur substantial losses over the next few years and we may never become profitable.

We have never been profitable and we may never become profitable. As of March 31, 2010, we had an accumulated deficit of $204.9 million. We expect to incur additional losses as we continue our development of bremelanotide, PL-3994, and PL-6983. Unless and until we receive approval from the FDA or other equivalent regulatory authorities outside the United States, we cannot sell our products and will not have product revenues from them. Therefore, for the foreseeable future, we will have to fund all of our operations and capital expenditures from reimbursements and other contract revenue under collaborative development agreements, existing cash balances and outside sources of financing, which may not be available on acceptable terms, if at all.

We will need to raise additional equity financing or other capital in order to continue as a going concern.

Our consolidated financial statements were prepared under the assumption that we will continue as a going concern. Our ability to continue as a going concern is dependent upon our ability to obtain additional equity financing or other capital, attain further operating efficiencies, reduce expenditures, and, ultimately, to generate revenue. We are continually evaluating opportunities to raise additional funds through public or private equity financings, as well as evaluating prospective business partners, and will continue to do so. However, if adequate funds are not available to us when we need it, and we are unable to enter into some form of strategic relationship that will give us access to additional cash resources, we will be required to even further curtail our operations which would, in turn, further raise substantial doubt about our ability to continue as a going concern.

We may implement a reverse stock split, which will reduce our trading volume and may result in a decrease in our market capitalization.

On March 3, 2010, we received notice from NYSE Amex that we had resolved continued listing deficiencies referenced in a letter from NYSE Amex dated December 23, 2008. The letter from the NYSE Amex also stated that as a result of the low selling price of our common stock, the NYSE Amex deemed it appropriate for us to effect a reverse stock split in accordance with Section 1003(f)(v) of the Company Guide. At the annual meeting of stockholders held on May 13, 2010, the stockholders authorized a reverse stock split which, if implemented, will combine between two and fifteen shares of outstanding common stock into one share of new

Table of Contents

common stock. We have agreed with the purchasers under this offering that we will not implement a reverse stock split through August 24, 2010, but can do so at any times thereafter until May 13, 2011 upon a determination by our board of directors that the reverse stock split is in the best interests of the Company and its stockholders. If the board decides to proceed with the reverse split, the board will determine the exact reverse split ratio and effective date. If we do not complete a reverse stock split within a reasonable amount of time, the NYSE Amex may consider suspending dealings in our common stock or initiate delisting procedures. In determining whether to proceed with the reverse split and setting the exact ratio of the split, the board will consider a number of factors, including additional funding requirements, the amount of our authorized but unissued common stock, market conditions, existing and expected trading prices of our common stock and the NYSE Amex listing requirements. We anticipate that the reverse split, if the board determines to proceed with it, may be implemented in conjunction with an equity financing or other transaction. We believe it is likely that the per share market price of our common stock will increase after a reverse split. However, we cannot guarantee that our common stock price will increase, and even if it does, we cannot guarantee that the price increase:

- will be proportionate to the reverse split ratio;
- will last in the marketplace for any length of time;
- will be sufficient to meet the listing requirements of the NYSE Amex; or
- will be sufficient to facilitate raising capital.

We have a limited operating history upon which to base an investment decision.

Our operations to date have been primarily focused on acquiring, developing and securing our proprietary technology, conducting preclinical and clinical studies and formulating and manufacturing on a small-scale basis our principal product candidates. These operations provide a limited basis for you to assess our ability to commercialize our product candidates.

We have not yet demonstrated our ability to perform the functions necessary for the successful commercialization of any of our current product candidates. The successful commercialization of our other product candidates will require us to perform a variety of functions, including:

- continuing to conduct preclinical development and clinical trials;
- participating in regulatory approval processes;
- formulating and manufacturing products, or having third parties formulate and manufacture products;
- post-approval pharmacovigilance;
- conducting sales and marketing activities, either alone or with a partner; and
- obtaining additional capital.

If we are unable to obtain regulatory approval of any of our product candidates, to successfully commercialize any products for which we receive regulatory approval or to obtain additional capital, we will not be able to recover our investment in our development efforts and may have to cease operations.

Development and commercialization of our product candidates involves a lengthy, complex and costly process and we may never successfully develop or commercialize any product.

Table of Contents

Our product candidates are at various stages of research and development, will require regulatory approval, and may never be successfully developed or commercialized. Our product candidates will require significant further research, development and testing before we can seek regulatory approval to market and sell them.

We must demonstrate that our product candidates are safe and effective for use in patients in order to receive regulatory approval for commercial sale. Preclinical studies in animals, using various doses and formulations, must be performed before we can begin human clinical trials. Even if we obtain favorable results in the preclinical studies, the results in humans may be different. Numerous small-scale human clinical trials may be necessary to obtain initial data on a product candidate's safety and efficacy in humans before advancing to large-scale human clinical trials. We face the risk that the results of our trials in later phases of clinical trials may be inconsistent with those obtained in earlier phases. Adverse or inconclusive results could delay the progress of our development programs and may prevent us from filing for regulatory approval of our product candidates. Additional factors that can cause delay or termination of our human clinical trials include:

- timely completion of clinical site protocol approval and obtaining informed consent from subjects;
- the rate of patient enrollment in clinical studies;
- adverse medical events or side effects in treated patients; and
- lack of effectiveness of the product being tested.

You should evaluate us in light of these uncertainties, delays, difficulties and expenses commonly experienced by early stage biopharmaceutical companies, as well as unanticipated problems and additional costs relating to:

- product approval or clearance;
- regulatory compliance;
- good manufacturing practices;
- intellectual property rights;
- product introduction; and
- marketing and competition.

We do not control the development of compounds licensed to third parties and, as a result, we may not realize a significant portion of the potential value of any such license arrangements.

Under our research collaboration and license agreement with AstraZeneca for our melanocortin-based therapeutic compounds for obesity, diabetes and related metabolic syndrome, we have no direct control over the development of compounds and have only limited, if any, input on the direction of development efforts. If the results of development efforts are negative or inconclusive, AstraZeneca may decide to abandon further development of this program, including terminating the license agreement, by giving us notice of termination. Because much of the potential value of the license arrangement with AstraZeneca is contingent upon the successful development and commercialization of the licensed technology, the ultimate value of this license will depend on the efforts of AstraZeneca. If AstraZeneca does not succeed in developing the licensed technology for any reason, or elects to discontinue the development of

this program, we may be unable to realize the potential value of this arrangement.

The regulatory approval process is lengthy, expensive and uncertain, and may prevent us from obtaining the approvals we require.

Table of Contents

Government authorities in the United States and other countries extensively regulate the advertising, labeling, storage, record-keeping, safety, efficacy, research, development, testing, manufacture, promotion, marketing and distribution of drug products. Drugs are subject to rigorous regulation by the FDA in the United States and similar regulatory bodies in other countries. The steps ordinarily required by the FDA before a new drug may be marketed in the United States include:

- completion of non-clinical tests including preclinical laboratory and formulation studies and animal testing and toxicology;
- submission to the FDA of an IND, which must become effective before clinical trials may begin;
- performance of adequate and well-controlled Phase 1, 2 and 3 human clinical trials to establish the safety and efficacy of the drug for each proposed indication;
- submission to the FDA of a New Drug Application (an NDA); and
- FDA review and approval of the NDA before any commercial marketing or sale.

Satisfaction of FDA pre-market approval requirements for new drugs typically takes several years and the actual time required for approval may vary substantially based upon the type, complexity and novelty of the product or disease. The results of product development, preclinical studies and clinical trials are submitted to the FDA as part of an NDA. The NDA also must contain extensive manufacturing information. Once the submission has been accepted for filing, the FDA generally has ten months to review the application and respond to the applicant. The review process is often significantly extended by FDA requests for additional information or clarification. Success in early stage clinical trials does not assure success in later stage clinical trials. Data obtained from clinical trials is not always conclusive and may be susceptible to varying interpretations that could delay, limit or prevent regulatory approval. The FDA may refer the NDA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved, but the FDA is not bound by the recommendation of the advisory committee. The FDA may deny or delay approval of applications that do not meet applicable regulatory criteria or if the FDA determines that the clinical data do not adequately establish the safety and efficacy of the drug. Therefore, our proposed products could take a significantly longer time than we expect or may never gain approval. If regulatory approval is delayed or never obtained, our business and our liquidity would be adversely affected.

Upon approval, a product candidate may be marketed only in those dosage forms and for those indications approved by the FDA. Once approved, the FDA may withdraw the product approval if compliance with regulatory requirements is not maintained or if problems occur after the product reaches the marketplace. In addition, the FDA may require post-marketing studies, referred to as Phase 4 studies, to monitor the approved products in a larger number of patients than were required for product approval and may limit further marketing of the product based on the results of these post-market studies. The FDA has broad post-market regulatory and enforcement powers, including the ability to seek injunctions, levy fines and civil penalties, criminal prosecution, withdraw approvals, and seize products or request recalls.

If regulatory approval of any of our product candidates is granted, it will be limited to certain disease states or conditions. Adverse experiences with the product must be reported to the FDA and could result in the imposition of market restriction through labeling changes or in product removal. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems concerning safety or efficacy of the product occur following approval.

Outside the United States, our ability to market our product candidates will also depend on receiving marketing authorizations from the appropriate regulatory authorities. The foreign regulatory approval process generally includes all of the risks associated with FDA approval described above. The requirements governing the conduct of clinical trials and marketing authorization vary widely from country to country. At present, foreign marketing authorizations are applied for at a national level, although within the European Community, or EC, registration procedures are available to companies wishing to market a product to more than one EC member state.

Table of Contents

If the regulatory authority is satisfied that adequate evidence of safety, quality and efficiency has been presented, a marketing authorization will be granted.

If any approved product does not achieve market acceptance, our business will suffer.

Regulatory approval for the marketing and sale of any of our product candidates does not assure the product's commercial success. Any approved product will compete with other products manufactured and marketed by major pharmaceutical and other biotechnology companies. The degree of market acceptance of any such product will depend on a number of factors, including:

- perceptions by members of the healthcare community, including physicians, about its safety and effectiveness;
- cost-effectiveness relative to competing products and technologies;
- availability of reimbursement for our products from third party payors such as health insurers, health maintenance organizations and government programs such as Medicare and Medicaid; and
- advantages over alternative treatment methods.

If any approved product does not achieve adequate market acceptance, our business, financial condition and results of operations will be adversely affected.

We rely on third parties to conduct clinical trials for our product candidates and their failure to timely perform their obligations could significantly harm our product development.

We rely on outside scientific collaborators such as researchers at clinical research organizations and universities in certain areas that are particularly relevant to our research and product development plans, such as the conduct of clinical trials and non-clinical tests. There is competition for these relationships, and we may not be able to maintain our relationships with them on acceptable terms. These outside collaborators generally may terminate their engagements with us at any time. As a result, we can control their activities only within certain limits, and they will devote only a certain amount of their time to conduct research on our product candidates and develop them. If they do not successfully carry out their duties under their agreements with us, fail to inform us if these trials fail to comply with clinical trial protocols or fail to meet expected deadlines, our ability to develop our product candidates and obtain regulatory approval on a timely basis, if at all, may be adversely affected.

Production and supply of our product candidates depend on contract manufacturers over whom we have no control.

We do not have the facilities to manufacture bremelanotide, PL-3994 or PL-6983 or our other potential products. Our contract manufacturers must perform these manufacturing activities in a manner that complies with FDA regulations. Our ability to control third-party compliance with FDA requirements will be limited to contractual remedies and rights of inspection. The manufacturers of approved products and their manufacturing facilities will be subject to continual review and periodic inspections by the FDA and other authorities where applicable, and must comply with ongoing regulatory requirements, including the FDA's current good manufacturing practices (GMPs) regulations. Failure of third-party manufacturers to comply with GMPs or other FDA requirements may result in enforcement action by the FDA. Failure to conduct their activities in compliance with FDA regulations could delay our development programs or negatively impact our ability to receive FDA approval of our potential products or continue marketing if they are approved. Establishing relationships with new suppliers, who must be FDA-approved, is a time-consuming and costly process.

We are subject to extensive regulation in connection with the laboratory practices and the hazardous materials we use.

Table of Contents

We are subject to various laws and regulations regarding laboratory practices, the experimental use of animals and the use and disposal of hazardous or potentially hazardous substances in connection with our research. In each of these areas, as noted above, the FDA and other regulatory authorities have broad regulatory and enforcement powers, including the ability to levy fines and civil penalties, suspend or delay issuance of approvals, seize or recall products and withdraw approvals, any one or more of which could have a material adverse effect on us. We are also subject to numerous federal, state and local laws relating to such matters as safe working conditions, manufacturing practices, environmental protection, fire hazard control and disposal of hazardous or potentially hazardous substances. We may incur significant costs to comply with such laws and regulations now or in the future.

Contamination or injury from hazardous materials used in the development of our products could result in a liability exceeding our financial resources.

Our research and development involves the use of hazardous materials and chemicals, including radioactive compounds. We cannot completely eliminate the risk of contamination or injury from these materials. In the event of contamination or injury, we may be responsible for any resulting damages. Damages could be significant and could exceed our financial resources, including the limits of our insurance.

We have no experience in marketing, distributing and selling products and will substantially rely on our marketing partners to provide these capabilities.

We are developing bremelanotide and PL-6983 for sexual dysfunction and PL-3994 for the treatment of heart failure, refractory hypertension, acute asthma and related indications. We do not have marketing partners for any of these products. If any of these products are approved by the FDA or other regulatory authorities, we must either develop marketing, distribution and selling capacity and expertise, which will be costly and time consuming, or enter into agreements with other companies to provide these capabilities. We may not be able to enter into suitable agreements on acceptable terms, if at all.

Competing products and technologies may make our proposed products noncompetitive.

There are a number of other products being developed for ED and FSD. In addition to three oral FDA-approved PDE-5 inhibitor drugs for the treatment of ED, there are other approved products and devices, and other products are being developed and are in clinical trials. There is competition to develop drugs for ED in patients non-responsive to PDE-5 inhibitor drugs, and to develop drugs for treatment of FSD.

We are aware of one recombinant natriuretic peptide product for acutely decompensated congestive HF approved and marketed in the United States, and another recombinant natriuretic peptide product approved and marketed in Japan. Clinical trials on other natriuretic peptide products are being conducted in the United States. In addition, other products for treatment of HF are either currently being marketed or in development. While we are not aware of natriuretic peptide products currently in development for either refractory hypertension or acute asthma, a number of other products for those indications are either currently being marketed or in development.

The biopharmaceutical industry is highly competitive. We are likely to encounter significant competition with respect to bremelanotide, PL-3994 and PL-6983. Most of our competitors have substantially greater financial and technological resources than we do. Many of them also have significantly greater experience in research and development, marketing, distribution and sales than we do. Accordingly, our competitors may succeed in developing, marketing, distributing and selling products and underlying technologies more rapidly than we can. These competitive products or technologies may be more effective and useful or less costly than bremelanotide, PL-3994 or PL-6983. In addition, academic institutions, hospitals, governmental agencies and other public and private research organizations

are also conducting research and may develop competing products or technologies on their own or through strategic alliances or collaborative arrangements.

Our ability to achieve revenues from the sale of our products in development will depend, in part, on our ability to obtain adequate reimbursement from Medicare, Medicaid, private insurers and other healthcare payers.

Table of Contents

Our ability to successfully commercialize our products in development will depend, in significant part, on the extent to which we or our marketing partners can obtain reimbursement for our products and also reimbursement at appropriate levels for the cost of our products and related treatment. Obtaining reimbursement from governmental payers, insurance companies, health maintenance organizations (HMOs) and other third-party payers of healthcare costs is a time consuming and expensive process. There is no guarantee that our products will ultimately be reimbursed. If we are able to obtain reimbursement, continuing efforts by governmental and third party payers to contain or reduce costs of healthcare may adversely affect our future revenues and ability to achieve profitability. Third-party payers are increasingly challenging the prices charged for diagnostic and therapeutic products and related services. Reimbursement from governmental payers is subject to statutory and regulatory changes, retroactive rate adjustments, administrative rulings and other policy changes, all of which could materially decrease the range of products for which we are reimbursed or the rates of reimbursement by government payers. In addition, legislative proposals to reform the healthcare system may result in lower prices or the actual inability of prospective customers to purchase our products in development. The cost containment measures that healthcare payers and providers are instituting and the effect of any healthcare reform could materially and adversely affect our ability to operate profitably. Furthermore, even if reimbursement is available, it may not be available at price levels sufficient for us to realize a positive return on our investment.

If we fail to adequately protect or enforce our intellectual property rights or secure rights to patents of others, the value of our intellectual property rights would diminish.

Our success, competitive position and future revenues will depend in part on our ability and the abilities of our licensors to obtain and maintain patent protection for our products, methods, processes and other technologies, to preserve our trade secrets, to prevent third parties from infringing on our proprietary rights and to operate without infringing the proprietary rights of third parties. We cannot predict:

- the degree and range of protection any patents will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- if and when patents will be issued;
- whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications; and
- whether we will need to initiate litigation or administrative proceedings, which may be costly whether we win or lose.

If our products, methods, processes and other technologies infringe the proprietary rights of other parties, we could incur substantial costs and we may have to:

- obtain licenses, which may not be available on commercially reasonable terms, if at all;
- redesign our products or processes to avoid infringement;
- stop using the subject matter claimed in the patents held by others;
- pay damages; or
-

defend litigation or administrative proceedings, which may be costly whether we win or lose, and which could result in a substantial diversion of our management resources.

If we are unable to keep our trade secrets confidential, our technologies and other proprietary information may be used by others to compete against us.

Table of Contents

In addition to our reliance on patents, we attempt to protect our proprietary technologies and processes by relying on trade secret laws and agreements with our employees and other persons who have access to our proprietary information. These agreements and arrangements may not provide meaningful protection for our proprietary technologies and processes in the event of unauthorized use or disclosure of such information. In addition, our competitors may independently develop substantially equivalent technologies and processes or gain access to our trade secrets or technology, either of which could materially and adversely affect our competitive position.

We may incur substantial liabilities and may be required to limit commercialization of our products in response to product liability lawsuits.

The testing and marketing of medical products entails an inherent risk of product liability. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our products or cease clinical trials. Our inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products we develop, alone or with corporate collaborators. We currently carry product/medical professional liability insurance, which includes liability insurance for our clinical trials. We, or any corporate collaborators, may not be able to maintain insurance at a reasonable cost or in sufficient amounts, if at all. Even if our agreements with any future corporate collaborators entitle us to indemnification against losses, such indemnification may not be available or adequate should any claim arise.

We are highly dependent on our management team, senior research professionals and third-party contractors and consultants, and the loss of their services could materially adversely affect our business.

We rely on our management team, our employees and various contractors and consultants to provide critical services. Our ability to execute our preclinical and clinical programs depends on our continued retention and motivation of our management and scientific personnel, including executive officers and senior members of research, development and management who possess significant technical expertise and experience and oversee our development programs. Our success also depends on our ability to develop and maintain relationships with contractors, consultants and scientific advisors. If we lose the services of existing personnel or consultants or fail to attract new personnel or consultants, our development programs could be adversely affected. Competition for personnel is intense. In addition, we may need to hire additional personnel or consultants to increase our research and development activities if we decide to expand research and development on new product opportunities.

Our stock price is, and we expect it to remain, volatile, which could limit investors' ability to sell stock at a profit.

The volatile price of our stock makes it difficult for investors to predict the value of their investment, to sell shares at a profit at any given time, or to plan purchases and sales in advance. A variety of factors may affect the market price of our common stock. These include, but are not limited to:

- publicity regarding actual or potential clinical results relating to products under development by our competitors or us;
- delay or failure in initiating, completing or analyzing preclinical or clinical trials or unsatisfactory designs or results of these trials;
- interim decisions by regulatory agencies, including the FDA, as to clinical trial designs, acceptable safety profiles, and the benefit/risk ratio of products under development;

- achievement or rejection of regulatory approvals by our competitors or by us;
- announcements of technological innovations or new commercial products by our competitors or by us;
- developments concerning proprietary rights, including patents;

Table of Contents

- developments concerning our collaborations;
- regulatory developments in the U.S. and foreign countries;
- economic or other crises and other external factors;
- period-to-period fluctuations in our revenue and other results of operations;
- changes in financial estimates by securities analysts; and
- sales of our common stock.

We will not be able to control many of these factors, and we believe that period-to-period comparisons of our financial results will not necessarily be indicative of our future performance. If our revenues, if any, in any particular period do not meet expectations, we may not be able to adjust our expenditures in that period, which could cause our operating results to suffer further. If our operating results in any future period fall below the expectations of securities analysts or investors, our stock price may fall by a significant amount.

For the 12 month period ended May 31, 2010, the price of our stock has been volatile, ranging from a high of $0.44 per share to a low of $0.20 per share.

In addition, the stock market in general, and the market for biotechnology companies in particular, has experienced extreme price and volume fluctuations that may have been unrelated or disproportionate to the operating performance of individual companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance.

Anti-takeover provisions of Delaware law and our charter documents may make potential acquisitions more difficult and could result in the entrenchment of management.

We are incorporated in Delaware. Anti-takeover provisions of Delaware law and our charter documents may make a change in control or efforts to remove management more difficult. Also, under Delaware law, our board of directors may adopt additional anti-takeover measures. Under Section 203 of the Delaware General Corporation Law, a corporation may not engage in a business combination with an “interested stockholder” for a period of three years after the date of the transaction in which the person first becomes an “interested stockholder,” unless the business combination is approved in a prescribed manner.

Our charter authorizes us to issue up to 10,000,000 shares of preferred stock and to determine the terms of those shares of stock without any further action by our stockholders. If we exercise this right, it could be more difficult for a third party to acquire a majority of our outstanding voting stock.

In addition, our equity incentive plans generally permit us to accelerate the vesting of options and other stock rights granted under these plans in the event of a change of control. If we accelerate the vesting of options or other stock rights, this action could make an acquisition more costly.

The application of these provisions could have the effect of delaying or preventing a change of control, which could adversely affect the market price of our common stock.

We do not intend to pay cash dividends in the foreseeable future.

We do not anticipate paying any cash dividends in the foreseeable future and intend to retain future earnings, if any, for the development and expansion of our business. In addition, the terms of existing or future agreements may limit our ability to pay dividends. Therefore, our stockholders will not receive a return on their shares unless the value of their shares increases.

Table of Contents

NOTE CONCERNING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus and the documents we have filed with the SEC that are incorporated by reference into this prospectus supplement and the accompanying prospectus contain forward-looking statements, within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, that involve risk and uncertainties. Any statements contained, or incorporated by reference, in this prospectus supplement and the accompanying prospectus that are not statements of historical fact may be forward-looking statements. When we use the words “anticipates,” “plans,” “expects” and similar expressions, we are identifying forward-looking statements. Forward-looking statements involve risks and uncertainties which may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking statements. These factors include, among others:

- current or future financial performance,
- management's plans and objectives for future operations,
- uncertainties associated with product research and development,
- clinical trials and results,
- uncertainties associated with dependence upon the actions of our collaborators and of government regulatory agencies,
- product plans and performance,
- management's assessment of market factors, and
- statements regarding our strategy and plans and those of our strategic partners.

These forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause our actual results to be materially different from our historical results or from any results expressed or implied by forward-looking statements. Our future operating results are subject to risks and uncertainties and are dependent upon many factors, including, without limitation, the risks identified under the caption “Risk Factors,” and in our other SEC filings. The statements we make in this prospectus supplement are as of the date of this prospectus supplement.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as may be required by law, we do not intend to update any of the forward-looking statements for any reason after the date of this prospectus supplement to conform such statements to actual results or if new information becomes available.

All forward-looking statements attributable to us, or to persons acting on our behalf, are expressly qualified in their entirety by these cautionary statements.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $1.83 million after deducting the placement agent's fees and estimated offering expenses. This amount does not include the proceeds which we may receive in connection with the exercise of the warrants. We intend to use the net proceeds of this offering to support clinical studies with PL-3994 and for general corporate purposes, including our internal discovery and development programs and general working capital. Pending use of the net proceeds, we intend to invest these net proceeds in interest-bearing, investment-grade securities.

Table of Contents

DILUTION

Our net tangible book value as of March 31, 2010, was approximately $11.6 million, or $0.108 per share of common stock. Net tangible book value per share is calculated by subtracting our total liabilities from our total tangible assets, which is total assets less intangible assets, and dividing this amount by the number of shares of common stock outstanding. After giving effect to the sale by us of the 10,000,000 shares of common stock included in the units offered in this offering, at a public offering price of $0.20 per share and after deducting the placement agent's fees and estimated offering expenses payable by us, our net tangible book value as of March 31, 2010, would have been approximately $13.4 million, or $0.115 per share of common stock. This represents an immediate increase in net tangible book value of $0.007 per share to our existing stockholders and an immediate and substantial dilution of $0.085 per share to new investors. The following table illustrates this per share dilution:

Offering price per share		$ 0.200
Net tangible book value per share as of March 31, 2010	$ 0.108	
Increase per share after the offering	$ 0.007	
Net tangible book value per share after this offering		$ 0.115
Dilution per share to new investors		$ 0.085

The foregoing table does not take into account further dilution to new investors that could occur upon the exercise of outstanding options and warrants having a per share exercise price less than the per share offering price to the public in this offering. As of March 31, 2010, there were 106,571,465 shares of common stock outstanding, which does not include:

- 9,573,735 shares of common stock issuable upon exercise of options outstanding as of March 31, 2010, at a weighted average exercise price of $1.32 per share.
- 13,954,566 shares of common stock issuable upon exercise of warrants outstanding as of March 31, 2010, at a weighted average exercise price of $0.92.
- 248,606 shares of common stock issuable upon conversion of the Series A Convertible Preferred Stock outstanding as of March 31, 2010.

Table of Contents

DESCRIPTION OF SECURITIES WE ARE OFFERING

In this offering, we are offering a maximum of 10,000,000 units, consisting in the aggregate of 10,000,000 shares of common stock and warrants to purchase an aggregate of 1,400,000 shares of common stock. Each unit consists of one share of common stock and a warrant to purchase 0.14 of one share of common stock at an exercise price of $0.20 per share. Units will not be issued or certificated. The shares of common stock and warrants are immediately separable and will be issued separately. This prospectus supplement also relates to the offering of 1,400,000 shares of our common stock issuable upon exercise, if any, of the warrants.

Common Stock

A description of the common stock we are offering pursuant to this prospectus supplement is set forth under the heading “Description of Securities,” starting on page 12 of the prospectus. As of June 24, 2010, we had 107,028,183 shares of common stock outstanding.

Warrants

The warrants offered in this offering will be issued in registered form pursuant to a securities purchase agreement between each of the purchasers and us. You should review the forms of securities purchase agreement and warrant which will be filed as exhibits to a Current Report on Form 8-K filed with the SEC in connection with this offering, for a complete description of the terms and conditions applicable to warrants. The following is a brief summary of the warrant and is subject in all respects to the provisions contained in such warrant.

Exercisability. Holders may exercise the warrants beginning immediately upon issuance and at any time up to the date that is one year after the date of such issuance. The warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise, except in the case of a cashless exercise, as discussed below.

Exercise Price. Each warrant is exercisable for 0.14 of one share of common stock at an exercise price of $0.20 per share of common stock being purchased. The exercise price is subject to appropriate adjustment in the event of stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Cashless Exercise. If, at any time during the warrant exercisability period, the holder is not permitted to sell shares of common stock issuable upon exercise of the warrant pursuant to the registration statement, or an exemption from registration is not otherwise available, and the fair market value of our common stock exceeds the exercise price of the warrants, the holder may elect to effect a cashless exercise of the warrants, in whole or in part, by surrendering the warrants to us, together with delivery to us of a duly executed exercise notice, and canceling a portion of the relevant warrant in payment of the purchase price payable in respect of the number of shares of our common stock purchased upon such exercise.

Transferability. Subject to applicable securities laws and otherwise set forth in the warrants, the warrants are transferable, in whole or in part upon surrender of the warrants at the principal office of the company or its designated agent, together with an assignment form as provided in the warrants.

Exchange Listing. We do not plan on making an application to list the warrants on the NYSE Amex, any national securities exchange or other nationally recognized trading system. The common stock underlying the warrants is

expected to be listed on the NYSE Amex.

Fundamental Transactions. In the event of any fundamental transaction, as described in the warrants, which generally includes any merger with or into another entity (whether or not we are the surviving entity but excluding a migratory merger effected solely for the purpose of changing our jurisdiction of incorporation), sale of all or substantially all of our assets, tender offer or exchange offer, our consummation of a stock purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) or reclassification of our common stock, then upon any subsequent exercise of a warrant, the holder shall have the right to receive, as alternative consideration, for each share of our common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number

Table of Contents

of shares of common stock of the successor or acquiring corporation or of Palatin, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of our common stock for which the warrant is exercisable immediately prior to such event. In the case of certain types of fundamental transactions, including all cash transactions and those with entities not traded on a national securities exchange, the holder has the option to require us or the successor or acquiring entity to purchase the warrant for cash equal to the Black-Scholes value of the unexercised warrant.

Rights as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their warrants.

Waivers and Amendments. The provisions of each warrant may be amended or modified or the provisions thereof waived, only with the written consent of the Company and holders holding warrants at least equal to 67% of the warrant shares issuable upon exercise of all then outstanding warrants.

Other Provisions. Unless otherwise specified in the applicable warrant, the holder will not have the right to exercise any portion of the warrant if the holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares outstanding immediately after giving effect to the exercise. The holder, upon not less than 61 days' prior notice to the Company, may increase or decrease percentage ownership provided that in no event does the amount exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise.

No fractional shares will be issued upon exercise of the warrants, but rather the Company will pay a cash adjustment in respect of such fraction in an amount equal to such fraction multiplied by the exercise price.

Additional Rights

We have agreed to certain lock-up provisions with regard to future sales of our common stock and other securities convertible into or exercisable or exchangeable for common stock for a period of thirty (30) days after the offering as set forth in the securities purchase agreement.

Amendment of Other Securities

A waiver agreement, under which purchasers under a securities purchase agreement dated February 24, 2010 agreed to waive rights to participate in the offering under this prospectus supplement and the term of certain previously warrants was extended, is included as an exhibit to our Current Report on Form 8-K that we will file with the SEC in connection with the consummation of this offering.

Table of Contents

PLAN OF DISTRIBUTION

We are offering the units through a placement agent. Subject to the terms and conditions contained in the placement agent agreement, dated June 25, 2010, Rodman & Renshaw, LLC has agreed to act as the placement agent for the sale of up to 10,000,000 units. The placement agent is not purchasing or selling any shares or warrants by this prospectus supplement or the accompanying prospectus, nor is it required to arrange for the purchase or sale of any specific number or dollar amount of units, but has agreed to use its reasonable best efforts to arrange for the sale of all units.

The placement agent agreement provides that the obligations of the placement agent and the investors are subject to certain conditions precedent, including the absence of any material adverse change in our business and the receipt of customary legal opinions, letters and certificates.

Confirmations and definitive prospectuses will be distributed to all investors who agree to purchase the units, informing investors of the closing date as to such units. We currently anticipate that closing of the sale of units will take place on or about June 30, 2010. Investors will also be informed of the date and manner in which they must transmit the purchase price for their units.

On the scheduled closing date, the following will occur:

- we will receive funds in the amount of the aggregate purchase price for the units we sell;
- we will deliver to each of the investors, through the Deposit or Withdrawal at Custodian system, the shares of common stock being purchased and, through physical delivery, the warrants; and
- Rodman & Renshaw, LLC will receive the placement agent's fee in accordance with the terms of the placement agent agreement.

We will pay the placement agent an aggregate cash commission equal to 6.0% of the gross proceeds from the sale of units. Subject to compliance with FINRA Rule 5110(f)(2)(D), we will also reimburse the placement agent for legal and other expenses incurred by it in connection with this offering up to a maximum of 0.8% of the aggregate gross proceeds, but in no event more than $30,000. If all of the units offered are sold, such reimbursement will be $16,000. The placement agent will also receive warrants to purchase shares of common stock equal to 5% of the aggregate number of shares of common stock included in the units that are sold in the offering with an exercise price of $0.25 per share (125% of the public offering price) and an expiration date of November 26, 2012 (the five year anniversary of the effective date of the registration statement). Pursuant to FINRA Rule 5110(g), for a period of six months after the issuance date of the Rodman warrant, neither the Rodman warrant nor any warrant shares issued upon exercise of the Rodman warrant shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except the transfer of any security:

(i) by operation of law or by reason of reorganization of the Company;

(ii) to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction set forth above for the remainder of the time period;

(iii)

if the aggregate amount of securities of the Company held by the holder of the Rodman warrant or related person do not exceed 1% of the securities being offered;

(iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or

(v) the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period.

The following table shows the per share and total fees we will pay to the placement agent in connection with the sale of our securities offered pursuant to this prospectus supplement and the accompanying prospectus,

Table of Contents

assuming the purchase of all of the securities offered hereby and excluding proceeds that we may receive upon exercise of the warrants.

Per share placement agent fee	$0.012
Total placement agent fees	$120,000

The estimated offering expenses payable by us, in addition to the placement agent's fee of $120,000, are approximately $50,000, which includes legal, accounting and printing costs, and various other fees associated with registering and listing the common stock. After deducting certain fees due to the placement agent and our estimated offering expenses, we expect the net proceeds from this offering to be approximately $1.83 million.

We have agreed to indemnify the placement agent against certain liabilities, including liabilities under the Securities Act of 1933, as amended, and liabilities arising from breaches of representations and warranties contained in the placement agent agreement. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

The placement agent agreement is included as an exhibit to our Current Report on Form 8-K that we will file with the SEC in connection with the consummation of this offering.

The transfer agent for our common stock to be issued in this offering is American Stock Transfer & Trust Company located at 59 Maiden Lane, Plaza Level, New York, New York 10038.

Our common stock is traded on the NYSE Amex under the symbol "PTN."

Table of Contents

LEGAL MATTERS

The validity of the issuance of the securities offered by this prospectus supplement and the accompanying prospectus will be passed upon for us by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York. Certain members of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. hold securities of the Company, which in the aggregate equal less than one percent (1.0%) of the total issued and outstanding shares of our common stock. Weinstein Smith LLP, New York, New York, is acting as counsel for the placement agent in connection with various matters related to the securities offered hereby.

EXPERTS

The consolidated financial statements of Palatin Technologies, Inc. as of June 30, 2009 and 2008, and for each of the years in the three-year period ended June 30, 2009, have been incorporated by reference in this prospectus and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and accompanying prospectus constitute a part of a registration statement on Form S-3 that we filed with the SEC under the Securities Act of 1933, as amended. We refer you to this registration statement for further information about us and the common stock and warrants to purchase our common stock offered hereby.

We file annual, quarterly and special reports and other information with the SEC (Commission File Number 001-15543). These filings contain important information that does not appear in this prospectus supplement or the accompanying prospectus. For further information about us, you may read and copy any reports, statements and other information filed by us at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549-0102. You may obtain further information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Our SEC filings are also available on the SEC Internet site at http://www.sec.gov, which contains periodic reports and other information regarding issuers that file electronically.

Table of Contents

INCORPORATION OF INFORMATION BY REFERENCE

We incorporate into this prospectus supplement information contained in documents which we file with the SEC. We are disclosing important information to you by referring you to those documents. The information which we incorporate by reference is an important part of this prospectus supplement, and certain 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 make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934.

- annual report on Form 10-K for the year ended June 30, 2009, filed on September 28, 2009
- quarterly report on Form 10-Q for the quarter ended September 30, 2009, filed on November 13, 2009
- quarterly report on Form 10-Q for the quarter ended December 31, 2009, filed on February 16, 2010
- quarterly report on Form 10-Q for the quarter ended March 31, 2010, filed on May 12, 2010
- current report on Form 8-K dated August 12, 2009, filed on August 13, 2009
- current report on Form 8-K dated August 18, 2009, filed on August 21, 2009
- current report on Form 8-K dated September 8, 2009, filed on September 8, 2009
- current report on Form 8-K dated September 24, 2009, filed on September 29, 2009
- current report on Form 8-K dated November 16, 2009, filed on November 16, 2009
- current report on Form 8-K dated February 16, 2010, filed on February 16, 2010
- current report on Form 8-K dated February 24, 2010, filed on March 1, 2010
- current report on Form 8-K dated May 13, 2010, filed on May 13, 2010
- current report on Form 8-K dated May 13, 2010, filed on May 14, 2010
- current report on Form 8-K dated June 25, 2010, filed on June 25, 2010
- description of our common stock contained in our registration statement on Form 8-A filed on December 13, 1999

This prospectus supplement may contain information that updates, modifies or is contrary to information in one or more of the documents incorporated by reference in this prospectus supplement. To the extent that any statements contained in a document incorporated by reference are modified or superseded by any statements contained in this prospectus supplement, such statements shall not be deemed incorporated in this prospectus supplement except as so modified or superseded. Reports we file with the SEC after the date of this prospectus supplement may also contain information that updates, modifies or is contrary to information in this prospectus supplement or in documents incorporated by reference in this prospectus supplement. Investors should review these reports as they may disclose a change in our business, prospectus, financial condition or other affairs after the date of this prospectus supplement.

You may obtain a free copy of any or all of the information incorporated by reference by writing or calling us. Please direct your request to:

Stephen T. Wills
Chief Financial Officer
Palatin Technologies, Inc.
4C Cedar Brook Drive
Cranbury, New Jersey 08512
Telephone (609) 495-2200
Fax (609) 495-2201