ARATANA THERAPEUTICS, INC.
Form S-1/A
June 26, 2013
Table of Contents

As filed with the Securities and Exchange Commission on June 26, 2013

Registration No. 333-187372

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 6

TO

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

ARATANA THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	2834	38-3826477
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

1901 Olathe Boulevard

Kansas City, KS 66103

(913) 951-2132

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

Steven St. Peter, M.D.

President and Chief Executive Officer

Aratana Therapeutics, Inc.

1901 Olathe Boulevard

Kansas City, KS 66103

(913) 951-2132

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Peter N. Handrinos, Esq.	**James A. Lebovitz, Esq.**
B. Shayne Kennedy, Esq.	**Dechert LLP**
Latham & Watkins LLP	**2929 Arch Street**
John Hancock Tower, 20th Floor	**Philadelphia, PA 19104**
200 Clarendon Street	**(215) 994-4000**
Boston, MA 02116	
(617) 948-6060	

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

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

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

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

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

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

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

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

Table of Contents

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state or other jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION DATED JUNE 26, 2013

PRELIMINARY PROSPECTUS

5,500,000 Shares

Common Stock

$ per share

This is the initial public offering of Aratana Therapeutics, Inc. We are offering 5,500,000 shares of our common stock. Prior to this offering, there has been no public market for our common stock. We estimate that the initial public offering price will be $6.00 per share.

Our common stock has been approved for listing on The NASDAQ Global Market under the symbol PETX.

We are an emerging growth company as defined by the Jumpstart Our Business Startups Act of 2012 and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page 11.

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts and commissions[(1)]	$	$
Proceeds, before expenses, to us	$	$

(1) In addition to underwriting discounts and commissions payable by us, we have agreed to reimburse the underwriters for certain expenses. See Underwriting.

Certain of our executive officers and directors or their affiliates have indicated an interest in purchasing an aggregate of approximately $7.75 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or may determine not to purchase any shares in this offering. It is also possible that these stockholders could indicate an interest in purchasing more shares of our common stock. In addition, the underwriters could determine to sell fewer shares to any of these stockholders than the stockholders indicate an interest in purchasing or could determine not to sell any shares to these stockholders.

We have granted the underwriters a 30-day option to purchase a total of up to 825,000 additional shares of common stock on the same terms and conditions set forth above if the underwriters sell more than 5,500,000 shares of common stock in this offering.

The underwriters expect to deliver shares of common stock to purchasers on , 2013.

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

Stifel **Lazard Capital Markets**

William Blair

JMP Securities

Craig-Hallum Capital Group

The date of this prospectus is , 2013.

Table of Contents

Table of Contents

TABLE OF CONTENTS

Until , 2013 (25 days after the commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry s future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in Risk Factors. These and other factors could cause our future performance to differ materially from our assumptions and estimates. See Special Note Regarding Forward-Looking Statements.

ARATANA THERAPEUTICS and our logo are two of our trademarks that are used in this prospectus. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear without the ® and symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the section in this prospectus entitled Risk Factors beginning on page 11 and our financial statements and the related notes thereto appearing at the end of this prospectus, before making an investment decision. As used in this prospectus, unless the context otherwise requires, references to we, us, our, our company and Aratana refer to Aratana Therapeutics, Inc.

Overview

Our Company

We are a development-stage biopharmaceutical company focused on the licensing, development and commercialization of innovative prescription medications for pets, or pet therapeutics. We operate at the intersection of the more than $50 billion annual U.S. pet market and the more than $20 billion annual worldwide animal health market. We believe that we can leverage the investment in the human biopharmaceutical industry to bring therapeutics to pets in a capital and time efficient manner. Our strategy is to in-license proprietary compounds from human biopharmaceutical companies and to develop these product candidates into regulatory-approved therapeutics specifically for use in pets. We believe the development and commercialization of these therapeutics will permit veterinarians and pet owners to manage pets medical needs safely and effectively, resulting in longer and improved quality of life for pets.

In order to successfully execute our plan, we have assembled an experienced management team consisting of veterinarians, physicians, scientists and other professionals that apply the core principles of drug development to the medical needs of pets. The members of our senior management team combined have over 100 years of experience in the animal health and human biopharmaceutical industries, as well as a strong track record of successfully developing and commercializing therapeutics for pets. Our Chief Scientific Officer and our Head of Drug Evaluation and Development have been actively involved in the development of 20 and 22, respectively, animal health products that have obtained regulatory approval. Our Chief Commercial Officer has been responsible for guiding the launch of 22 animal health products, including the highest selling product for the treatment of pain in dogs, Rimadyl.

Since our founding in 2010, we have licensed three compounds, AT-001, AT-002 and AT-003, that we are developing into six products for use in pets in the United States and Europe. We are conducting clinical studies designed to confirm the safety and effectiveness of selected dose regimens, referred to as dose confirmation studies, for AT-001 for the treatment of pain and inflammation associated with osteoarthritis in dogs and for AT-002 for the treatment of inappetence in both cats and dogs. Once these studies are complete, we intend to start clinical studies intended to provide substantial evidence required for regulatory approval, referred to as pivotal effectiveness studies, and assuming we enroll a sufficient number of client-owned pets in a timely manner, we expect to have results from these pivotal studies in late-2013 and 2014. We intend to initiate dose confirmation studies for AT-003 for the treatment of post-operative pain in both cats and dogs in mid-2013. We aim to submit new animal drug applications, or NADAs, for U.S. approval for the majority of these potential products in 2015 and 2016 and to make similar regulatory filings for European approval in 2016 and 2017. We plan to commercialize our products in the United States through a direct sales force, complemented by distributor relationships, and in Europe and rest of world through commercial partners.

We believe that the role of pets in the family has significantly evolved over the last two decades. Many pet owners consider pets important members of their families, and they have been increasingly willing to spend money to maintain the health of their pets. Consequently, pets are living longer and, as they do, are exhibiting many of the same signs and symptoms of disease as humans, such as arthritis, obesity, diabetes, cancer and heart disease. Today

Table of Contents

veterinarians have comparatively few drugs at their disposal that have been specifically approved for use in pets. As a result, veterinarians often must resort to using products approved for use in humans but not approved, or even formally studied, in pets, relying on key opinion leaders and literature, rather than regulatory review. Given the biological differences between humans and other species, drugs that are considered safe and effective in humans may be harmful or ineffective if used in other species. Furthermore, certain approved pet therapeutics, such as the non-steroidal anti-inflammatory drug class of products, or NSAIDs, have known and potentially serious side effects that limit their use and may require monitoring. We believe that pets deserve therapeutics that have been specifically studied and approved by regulatory authorities for each species, and that veterinarians and pet owners will increasingly demand that therapeutics are demonstrated to be safe and effective in pets before using them.

We have an active in-licensing effort focused on identifying human therapeutics for development and commercialization as pet therapeutics. We seek to identify compounds that have demonstrated safety and effectiveness in at least two species and are in, or have completed, Phase I or Phase II clinical trials in humans, with well-developed active pharmaceutical ingredient, or API, process chemistry and a well-defined manufacturing process. Once identified, we seek to obtain exclusive, worldwide rights to these compounds in the animal health field and believe that we can bring the products to market for pets quickly and efficiently. We believe that our product candidates, if approved, will enable veterinarians to deliver a higher level of medical care to pets while providing an important revenue stream to the veterinarian s practice.

Pet Therapeutics Industry

According to the American Pet Products Association, or APPA, U.S. consumers spent an estimated $53 billion on their pets in 2012, up approximately 38% over 2006, representing a compound annual growth rate, or CAGR, of approximately 5.5% over that period. Cats and dogs are the most popular pet species in the United States and Europe: there are approximately 96 million cats and 83 million dogs in the United States and 85 million cats and 74 million dogs in Europe. An estimated 68% of U.S. households have at least one pet. The U.S. pet market has grown by rates far exceeding inflation, driven by increases in average spending per pet each year since 2006. The U.S. veterinary care segment has been among the fastest growing segments of the overall U.S. pet market, increasing from $9.2 billion in 2006 to $13.6 billion in 2012, representing a CAGR of 6.7%. We estimate that of this $13.6 billion, approximately $6.3 billion was related to consumer spending in pet medicines, which included approximately $4.7 billion for parasiticides and vaccines with approximately $1.6 billion for pet therapeutics. We derived these estimates using data from Vetnosis Limited, a research and consulting firm specializing in animal health and veterinary medicine, for sales of pet therapeutics directly to veterinarians and then adjusted the number to reflect a typical industry mark-up charged to the pet owners by the veterinarian. The $1.6 billion U.S. pet therapeutics market represents less than $10 per year per pet.

There have been relatively few approvals granted by the Food and Drug Administration s, or FDA s, Center for Veterinary Medicine, or CVM, and the European Medicines Agency, or EMA, in recent years despite a generally faster, less expensive and more predictable regulatory approval process for pet therapeutics than human therapeutics. For example, in 2012, 39 new human drugs were approved by the FDA, while only 11 new drugs were approved by the CVM, six of which were for use in cats or dogs. We believe that the pet market, driven in part by expansion of the veterinary care segment, will continue to grow and that the introduction of novel pet therapeutics offering significant safety and efficacy benefits over existing products will result in pet therapeutics garnering a larger share of total consumer spending on pets.

Table of Contents

Differences Between Human and Pet Therapeutics

While the business of developing and commercializing therapeutics for pets shares a number of characteristics with the business of developing and commercializing therapeutics for humans, there are also significant differences between the pet therapeutics and human therapeutics businesses that we believe make the pet therapeutics market attractive, including:

Faster, less expensive and more predictable development

Development of pet therapeutics is generally faster and less expensive than for human therapeutics because it requires fewer clinical studies, involves fewer subjects and is conducted directly in the target species. Because there is no need to bridge from pre-clinical investigations in one species to the final target species, decisions on the potential efficacy and safety of products often can be made more quickly, and the likelihood of success often can be established earlier. This contributes to the enhanced process and greater capital efficiency of pet versus human drug development.

Role and economics of veterinary practices

In addition to the primary goal of improving the health of pets, veterinary practices can generate additional value and revenue growth by prescribing pet therapeutics. Unlike in the human pharmaceutical market, veterinarians often serve the dual roles of doctor and pharmacist as pet owners typically purchase medicines directly from veterinarians. As a result, the sale of pet therapeutics directly to pet owners is a meaningful contributor to veterinary practice economics. According to industry sources, approximately one-third of companion animal practice revenue comes from prescription drug sales, parasiticides, vaccinations and non-prescription medicines. We believe that this revenue stream could be increased significantly with the introduction of novel therapeutics that have been specifically developed for pets.

Partnership relationships with, and better access to, veterinarian decision-makers

The pet therapeutics industry typically uses a combination of sales representatives to inform veterinarians about the attributes of products and technical and veterinary operations specialists to provide advice regarding local, regional and global trends. In many cases, a pet therapeutics sales representative is viewed by the veterinarian as both an educator and a business partner. These direct relationships allow pet therapeutics sales representatives to understand the needs of the veterinarians and ultimately pet owners and to develop products to better meet those needs.

Primarily private-pay nature of veterinary market

Pet owners generally pay for pet healthcare, including pet therapeutics, out-of-pocket. Third-party insurance covers less than 5% of U.S. pet owners. Pet owners make decisions primarily on the advice of their veterinarian, without the influence of insurance companies or government payors that are often involved in product and pricing decisions in human healthcare. We believe that this dynamic results in less pricing pressure than in human health. Furthermore, this enables pet therapeutics companies to directly market to pet owners to encourage them to consult with their veterinarians.

Lack of robust generic competition and strong brand loyalty

There is no large, well-capitalized industry principally focused on generic pet therapeutics. Reasons for this include the smaller average market size of each product opportunity, the importance of direct sales distribution and education to veterinarians and the primarily private-pay nature of the business. We believe that this dynamic also results in less pricing pressure than in human health.

Table of Contents

Although there are several differences between the pet therapeutics and human therapeutics businesses that make the pet therapeutics market attractive, some of the differences between the two businesses present challenges for the pet therapeutics market. For example, even though pets are increasingly considered members of the family, we expect that pet owners generally will not be willing to spend as much to care for the health of their pets as they will to care for their health or the health of their human family members. Additionally, only limited medical insurance for pets exists, making most veterinary expenses, including pet therapeutics, private pay, which further limits the ability of pet owners to provide appropriate medical care to their pets. In some instances, human biopharmaceutical companies may be unwilling to license us their products or compounds for development as pet therapeutics because of perceived regulatory and commercial risks. These differences can present challenges to participants in the pet therapeutics market including us.

Our Product Candidates

We currently have three licensed compounds in development for six product approvals in cats and dogs in each of the United States and Europe. The following table identifies each of our compounds in development, the company from which we are licensing the compound, its potential indication, development status, including the date of our investigational new animal drug, or INAD, filing, and expected next step in the development process.

Compound (Licensor)	Species	Indication	INAD Filing	Development Status	Expected Next Step
AT-001 (RaQualia)	Dog	Pain and inflammation associated with osteoarthritis	February 2011	Dose confirmation study ongoing	Pivotal field effectiveness study
	Cat	Pain management	September 2012	Selection of indication	Dose confirmation study
AT-002 (RaQualia)	Dog	Stimulation of appetite	November 2011	Dose confirmation study ongoing	Pivotal field effectiveness study
	Cat	Stimulation of appetite	March 2003[(1)]	Dose confirmation study ongoing	Pivotal field effectiveness study
AT-003 (Pacira)	Dog	Post-operative pain management	January 2013	Proof of concept study ongoing	Dose confirmation study
	Cat	Post-operative pain management	January 2013	Proof of concept study ongoing	Dose confirmation study

(1) Date of initial filing; transferred to us in June 2011.

Upon completion of the development program, we plan to submit these product candidates for approval in the United States to the CVM and for approval in Europe to the EMA. We expect to have each of these product candidates approved for use in the United States and Europe in both cats and dogs, starting with our first product approval expected in 2016.

Our Strategy

Our goal is to become a leading provider of therapeutics developed and approved specifically for the treatment of unmet medical needs in pets. We are a pet-focused company and we intend to help shape and define the pet therapeutics market. We plan to accomplish this by:

- Continuing to expand our product pipeline by in-licensing additional compounds;
- Advancing our existing compounds, AT-001, AT-002 and AT-003, to regulatory approval;
- Using a direct sales organization and distributors to commercialize our products in the United States;
- Engaging active partners to build a commercial presence outside the United States; and
- Leveraging our management team s established experience in the human biopharmaceutical and animal health industries.

4

Table of Contents

Risks Related to Our Business

Our ability to implement our business strategy is subject to numerous risks, as more fully described in the section entitled Risk Factors immediately following this prospectus summary. These risks include, among others:

- We have a limited operating history and have incurred significant losses since our inception.
- We have no products approved for sales and marketing and no revenue.
- We are substantially dependent on the success of our current compounds, AT-001, AT-002 and AT-003, which are currently our only product candidates and are still in development.
- If we are not successful in identifying, licensing, developing and commercializing additional product candidates, our ability to expand our business and achieve our strategic objectives would be impaired.
- We may not be able to obtain regulatory approval for our existing or future product candidates under applicable regulatory requirements.
- Even if our current or future product candidates obtain regulatory approval, they may never achieve market acceptance or commercial success.
- Development of pet therapeutics involves an expensive and lengthy process with uncertain outcome, and results of earlier studies may not be predictive of future study results.
- We rely completely on third-party manufacturers to manufacture the supplies for the development of our current product candidates and we intend to rely on third-party manufacturers to produce commercial quantities of any approved drug candidate.
- We currently own one patent application, license the issued patents covering our product candidates and have limited rights to prosecute and enforce those licensed patents.
- If we fail to comply with our obligations under our intellectual property licenses with third parties, we could lose license rights that are essential to our business.
- The regulatory approval process is uncertain, requires us to utilize significant resources, and may prevent us or our collaboration partners from obtaining approvals for the commercialization of some or all of our product candidates.

Corporate Information

Our principal executive offices are located at 1901 Olathe Boulevard, Kansas City, Kansas 66103, and our telephone number is (913) 951-2132. We also maintain additional corporate office space at 200 Clarendon Street, 54th Floor, Boston, Massachusetts 02116, and our telephone number there is (617) 425-9226. Our website address is *www.aratana.com.* The information contained in, or accessible through, our website should not be considered a part of this prospectus.

Implications of Being an Emerging Growth Company

As a company with less than $1.0 billion in revenue during our last fiscal year, we qualify as an emerging growth company as defined in the Jumpstart Our Business Startups Act, or JOBS Act, enacted in April 2012. An emerging growth company may take advantage of reduced reporting requirements that are otherwise applicable to public companies. These provisions include, but are not limited to:

- being permitted to present only two years of audited financial statements and only two years of related Management s Discussion & Analysis of Financial Condition and Results of Operations in this prospectus;
- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports, proxy statements and registration statements; and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Table of Contents

We may take advantage of these provisions until the last day of our fiscal year following the fifth anniversary of the date of the first sale of our common equity securities pursuant to an effective registration statement under the Securities Act of 1933, as amended, or the Securities Act, which such fifth anniversary will occur in 2018. However, if certain events occur prior to the end of such five-year period, including if we become a large accelerated filer, our annual gross revenues exceed $1.0 billion or we issue more than $1.0 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period.

We have elected to take advantage of certain of the reduced disclosure obligations regarding executive compensation in this registration statement and may elect to take advantage of other reduced reporting requirements in future filings. As a result, the information that we provide to our stockholders may be different than the information you might receive from other public reporting companies in which you hold equity interests.

Table of Contents

THE OFFERING

Common stock offered by us	5,500,000 shares (or 6,325,000 shares if the underwriters exercise their option to purchase additional shares in full)
Common stock to be outstanding after this offering	19,609,766 shares (or 20,434,766 shares if the underwriters exercise their option to purchase additional shares in full)
Use of proceeds	We intend to use the net proceeds of this offering for the development of our commercial infrastructure and other general corporate and working capital purposes, including the potential in-licensing and initial development of additional product candidates. See Use of Proceeds on page 37 for a description of the intended use of proceeds from this offering.
Offering price	$ per share
Risk factors	See Risk Factors beginning on page 11 and other information included in this prospectus for a discussion of factors that you should consider carefully before deciding to invest in our common stock.
Directed share program	At our request, the underwriters have reserved up to 5% of the shares to be offered in this offering for sale at the initial public offering price to certain of our directors, officers, existing stockholders, employees, business associates and related persons. Any directed shares not purchased will be offered by the underwriters to the general public on the same basis as all other shares offered.
NASDAQ Global Market Symbol	PETX

The number of shares of our common stock to be outstanding after this offering is based on 14,109,766 shares of our common stock outstanding as of March 31, 2013 and excludes:

- 508,981 shares of common stock issuable upon exercise of stock options outstanding as of March 31, 2013, at a weighted-average exercise price of $0.30 per share;
- 1,021,578 shares of restricted stock that are subject to vesting restrictions as of March 31, 2013 and are not considered outstanding for accounting purposes;
- 42,353 shares of common stock reserved as of March 31, 2013 for future issuance under our 2010 equity incentive plan, all of which we have subsequently granted or expect to grant on or prior to the date that the registration statement of which this prospectus forms a part is declared effective, which we refer to as the pricing date;

321,144 shares of common stock that we expect to grant under our 2013 incentive award plan on the pricing date; and
641,551 shares of common stock reserved for issuance under our new 2013 incentive award plan, after taking into account the awards described in the immediately preceding bullet.

Table of Contents

Unless otherwise indicated, this prospectus reflects and assumes the following:

- a 1-for-1.662 reverse split of our common stock effected on May 22, 2013;
- the filing of our restated certificate of incorporation and the adoption of our amended and restated bylaws, which will occur immediately prior to the closing of this offering;
- the automatic conversion of all outstanding shares of our convertible preferred stock into 12,596,115 shares of our common stock immediately prior to the closing of the offering;
- the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock upon the closing of this offering in satisfaction of accumulated and unpaid dividends, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed initial public offering price of $6.00 per share, all of which is described more fully under the section of this prospectus entitled Capitalization Accumulated and Unpaid Dividends ;
- no exercise of the outstanding options described above; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.

Certain of our executive officers and directors or their affiliates, including Avalon Ventures IX, L.P., entities affiliated with Cultivian Ventures and MPM BioVentures V, have indicated an interest in purchasing an aggregate of approximately $7.75 million in shares of our common stock in this offering at the initial public offering price. Assuming an initial public offering price of $6.00 per share, these stockholders would purchase an aggregate of approximately 1.29 million shares of the 5,500,000 shares offered in this offering based on these indications of interest. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or may determine not to purchase any shares in this offering. It is also possible that these stockholders could indicate an interest in purchasing more shares of our common stock. In addition, the underwriters could determine to sell fewer shares to any of these stockholders than the stockholders indicate an interest in purchasing or could determine not to sell any shares to these stockholders.

Table of Contents

SUMMARY FINANCIAL DATA

The following tables set forth a summary of our historical financial data as of, and for the period ended on, the dates indicated. We have derived the statement of operations data for the years ended December 31, 2011 and 2012 from our audited financial statements included elsewhere in this prospectus. The statement of operations data for the three months ended March 31, 2012 and 2013 and for the period from our inception (December 1, 2010) to March 31, 2013 and the balance sheet data as of March 31, 2013 have been derived from our unaudited financial statements appearing elsewhere in this prospectus. This unaudited interim financial information has been prepared on the same basis as our audited financial statements and, in our opinion, reflects all adjustments, consisting only of normal and recurring adjustments, that we consider necessary for a fair presentation of our financial position as of March 31, 2013 and operating results for the periods ended March 31, 2012 and 2013. You should read this data together with our financial statements and related notes appearing elsewhere in this prospectus and the sections in this prospectus entitled Selected Financial Data and Management s Discussion and Analysis of Financial Condition and Results of Operations. The historical results are not necessarily indicative of the results to be expected for any future periods and the results from the three months ended March 31, 2013 should not be considered indicative of results expected for the fiscal year 2013.

	Year Ended December 31,		Three Months Ended March 31,		Cumulative period from Inception (December 1, 2010) to March 31, 2013
	2011	2012	2012 (unaudited)	2013 (unaudited)	(unaudited)
	(in thousands, except share and per share data)				
Statement of Operations Data:					
Revenue	$	$	$	$	$
Operating expenses:					
Research and development	2,196	7,291	1,751	2,114	11,601
General and administrative	1,274	2,987	498	1,226	5,796
In-process research and development		1,500			8,025
Total operating expenses	3,470	11,778	2,249	3,340	25,422
Loss from operations	(3,470)	(11,778)	(2,249)	(3,340)	(25,422)
Other income (expense):					
Interest income	6	21	4	3	30
Interest expense				(24)	(24)
Other income		121		68	189
Total other income (expense)	6	142	4	47	195
Net loss and comprehensive loss	$ (3,464)	$ (11,636)	$ (2,245)	$ (3,293)	$ (25,227)
Modification of series A convertible preferred stock	(276)				
Unaccreted dividends on convertible preferred stock	(902)	(2,035)	(444)	(773)	
Net loss attributable to common stockholders	$ (4,642)	$ (13,671)	$ (2,689)	$ (4,066)	
Net loss per share attributable to common stockholders, basic and diluted[1]	$ (15.43)	$ (34.53)	$ (8.94)	$ (4.73)	
Weighted average shares outstanding, basic and diluted**(1)**	300,841	395,918	300,841	860,350	
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[2]		$ (1.01)		$ (0.24)	
		11,465,054		13,936,333	

Weighted average shares used in computing pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)**(2)**	

Table of Contents

(1) See Note 17 to our financial statements included elsewhere in this prospectus for further details on the calculation of basic and diluted net loss per share attributable to common stockholders.

(2) See Note 17 to our financial statements included elsewhere in this prospectus for further details on the calculation of pro forma basic and diluted net loss per share attributable to common stockholders.

	As of March 31, 2013		
	Actual	Pro Forma[1]	Pro Forma As Adjusted[1][2]
		(in thousands)	
Balance Sheet Data:			
Cash, cash equivalents and short-term investments	$ 25,652	$ 25,652	$ 53,841
Working capital[3]	22,086	22,086	50,275
Total assets	27,109	27,109	54,087
Total long-term debt, net of discount	4,929	4,929	4,929
Total convertible preferred stock[4]	41,952		
Total stockholders equity (deficit)	(24,707)	17,245	45,434

(1) Gives effect to:
the automatic conversion of all of our outstanding shares of convertible preferred stock as of March 31, 2013 into an aggregate of 12,596,115 shares of common stock immediately prior to the closing of this offering; and
the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock in satisfaction of accumulated and unpaid dividends, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed initial public offering price of $6.00 per share, all of which is described more fully under the section of this prospectus entitled Capitalization Accumulated and Unpaid Dividends.

(2) Gives further effect to the issuance and sale of 5,500,000 shares of common stock in this offering at the assumed initial public offering price of $6.00 per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each $1.00 increase (decrease) in the assumed initial public offering price of $6.00 per share would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, working capital, total assets and total stockholders equity by approximately $5.1 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price would increase (decrease) each of cash, cash equivalents and short-term investments, working capital, total assets and total stockholders equity by approximately $5.6 million. The pro forma information discussed above is illustrative only and will be adjusted based on the actual initial public offering price and other terms of our initial public offering determined at pricing.

(3) We define working capital as current assets less current liabilities.

(4) Consists of our series A, A-1, B and C convertible preferred stock. See Note 10 to our financial statements included elsewhere in this prospectus.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this prospectus, including our financial statements and the related notes and Management s Discussion and Analysis of Results of Operations and Financial Condition, before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the market price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Related to Our Limited Operating History and Financial Condition

We have a limited operating history and have incurred significant losses since our inception and we anticipate that we will continue to incur losses for the foreseeable future. We are currently developing three compounds for six product approvals in each of the United States and Europe and have no commercial sales, which, together with our limited operating history, makes it difficult to assess our future viability.

We are a development-stage biopharmaceutical company in the pet therapeutics industry with a limited operating history. Biopharmaceutical product development in the pet therapeutics industry is a highly speculative undertaking and involves a substantial degree of risk. To date, we have focused primarily on developing our licensed compounds, AT-001, AT-002 and AT-003, for six product approvals in cats and dogs in each of the United States and Europe. We are not profitable and have incurred losses in each year since our inception in December 2010. We have a limited operating history upon which you can evaluate our business and prospects. In addition, as an early stage company, we have limited experience and have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical industry. We have not generated any revenue from product sales to date. We continue to incur significant research and development and other expenses related to our ongoing operations. Our net loss for the three months ended March 31, 2013 was $3.3 million and for the years ended December 31, 2011 and 2012 was $3.5 million and $11.6 million, respectively. As of March 31, 2013, we had a deficit accumulated during development stage of $25.5 million and we had $25.7 million in cash, cash equivalents and short-term investments. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our development of, and seek regulatory approvals for, our product candidates and begin to commercialize them if they are approved by the U.S. Food and Drug Administration s Center for Veterinary Medicine, or CVM. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders equity and working capital.

We may require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce or terminate our product portfolio expansion, product development, other operations or commercialization efforts.

Since our inception, nearly all of our resources have been dedicated to the in-licensing and research and development of our current product candidates. Completing the development and obtaining regulatory approval of our product candidates will require substantial funds. We also have an active in-licensing effort focused on identifying human therapeutics for development and commercialization as pet therapeutics. We believe that we will continue to expend substantial resources for the foreseeable future for the development of our current product candidates and in-licensing and research and development of any other product candidates we may choose to pursue. These expenditures will include costs associated with identifying potential product candidates, licensing payments, conducting target animal studies, completing other research and development, obtaining regulatory approvals and manufacturing and supply, as well as marketing and selling any products approved for sale. In

Table of Contents

addition, other unanticipated costs may arise. Because the outcome of any target animal study is uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of any of our current or future product candidates.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents and existing credit facility will allow us to fund our operating plan through at least the next 24 months. However, our operating plan may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned through public or private equity or debt financings or other sources, such as strategic collaborations. Such financing may result in dilution to stockholders, imposition of debt covenants and repayment obligations, or other restrictions that may affect our business. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Our future capital requirements depend on many factors, including, but not limited to:

- the results of our target animal studies for our current and future product candidates;
- the amount and timing of any milestone payments or royalties we must pay pursuant to our current or future license agreements or collaboration agreements;
- the timing of, and the costs involved in, obtaining regulatory approvals for any of our current or future product candidates;
- the upfront and other payments, and associated costs, related to identifying and in-licensing new product candidates;
- the number and characteristics of the product candidates we pursue;
- the scope, progress, results and costs of researching and developing any of our current or future product candidates and conducting target animal studies;
- our ability to partner with companies with an established commercial presence in Europe to provide our products in that market;
- the cost of commercialization activities if any of our current or future product candidates are approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing our current and future product candidates and any products we successfully commercialize;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements;
- whether we are required to repay amounts that we received from the Kansas Bioscience Authority, or the KBA, repurchase the shares of our capital stock owned by the KBA or repay Kansas income tax credits allocated to some of our investors (see Management s Discussion and Analysis of Financial Condition and Results of Operations Kansas Programs);
- our ability to draw funds from our existing credit facility;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation.

Additional funds may not be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate:

- our target animal studies or other development activities for our current or future product candidates;
- our establishment of sales and marketing capabilities or other activities that may be necessary to commercialize any of our current or future product candidates; or
- our in-licensing effort and expansion of our product portfolio.

Table of Contents

Risks Related to Our Business

We are substantially dependent on the success of our current compounds, AT-001, AT-002 and AT-003, which are currently our only product candidates and are still in development.

We currently have no products approved for commercial distribution. To date, we have invested nearly all of our efforts and financial resources in the in-licensing, research and development of AT-001, AT-002 and AT-003, which are currently our only product candidates and are still in development.

Our near-term prospects, including our ability to finance our company and to enter into strategic collaborations and generate revenue, will depend heavily on the successful development and commercialization of our current and future product candidates. The development and commercial success of our current product candidates will depend on a number of factors, including the following:

- timely initiation and completion of our target animal studies for our current product candidates, which may be significantly slower than we currently anticipate and will depend substantially upon the satisfactory performance of third-party contractors;
- our ability to demonstrate to the satisfaction of the CVM and the European Medicines Agency, or EMA, the safety and efficacy of our product candidates and to obtain regulatory approval in the United States and Europe;
- our success in educating veterinarians and pet owners about the benefits, administration and use of our product candidates;
- the prevalence and severity of adverse side effects, including a continued acceptable safety profile of the product following approval;
- achieving and maintaining compliance with all regulatory requirements applicable to our product candidates;
- the availability, perceived advantages, relative cost, relative safety and relative efficacy of alternative and competing treatments;
- the effectiveness of our marketing, sales and distribution strategy and operations;
- the ability of our third-party manufacturers to manufacture supplies of any of our current or future product candidates and to develop, validate and maintain commercially viable manufacturing processes that are compliant with current Good Manufacturing Practices, or cGMP;
- our ability to successfully launch commercial sales of our current product candidates, assuming CVM approval is obtained, whether alone or in collaboration with others;
- our ability to enforce our intellectual property rights in and to our product candidates and avoid third-party patent interference, third-party initiated and U.S. PTO-initiated administrative patent proceedings or patent infringement claims; and
- acceptance of our product candidates as safe and effective by veterinarians, pet owners and the animal health community.

Many of these factors are beyond our control. Accordingly, we cannot assure you that we will ever be able to generate revenue through the sale of our product candidates. If we are not successful in commercializing one or more of our product candidates, or are significantly delayed in doing so, our business will be materially harmed and the value of your investment could substantially decline.

If we are not successful in identifying, licensing, developing and commercializing additional product candidates, our ability to expand our business and achieve our strategic objectives would be impaired.

Although a substantial amount of our effort will focus on the continued development and potential approval of our current product candidates, a key element of our strategy is to identify, license, develop and commercialize a portfolio of products to serve the pet therapeutics market. We derive potential pet therapeutic product candidates from molecules and compounds discovered or developed as part of human biopharmaceutical research. We expect to enter into license arrangements with third parties to provide us with rights to human health compounds for purposes of our business. Such agreements are typically complex and require time to negotiate and implement. If we

Table of Contents

enter into these arrangements, we may not be able to maintain these relationships or establish new ones in the future on acceptable terms or at all. If we are unable to access human health-generated molecules and compounds to conduct research and development on cost-effective terms, our ability to develop new products could be limited. In some instances, human biopharmaceutical companies may be unwilling to license us their products or compounds for development as pet therapeutics because of perceived regulatory and commercial risks, including the risk that the FDA could delay or halt an ongoing human development trial if the same compound, when studied in animals, produces an unexplained adverse event or death, and the risk that, if the same compound is developed for humans and pets, and the human version is priced significantly higher than the pet version, which is usually the case, human patients would attempt to use the cheaper animal version of the drug. Even if we successfully identify and license potential product candidates, we may still fail to yield product candidates for development and commercialization for many reasons, including the following:

- competitors may develop alternatives that render our product candidates obsolete;
- product candidates we develop may nevertheless be covered by third parties patents or other exclusive rights;
- a product candidate may on further study be shown to have harmful side effects in pets or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a product candidate may not be accepted as safe and effective by veterinarians, pet owners and the pet therapeutic community.

If we fail to develop and successfully commercialize other product candidates, our business and future prospects may be harmed and our business will be more vulnerable to any problems that we encounter in developing and commercializing our current and future product candidates.

We may be unable to obtain regulatory approval for our existing or future product candidates under applicable regulatory requirements. The denial or delay of any such approval would delay commercialization efforts and adversely impact our potential to generate revenue, our business and our results of operations.

Our product candidates are in various stages of development, and our business currently depends entirely on their successful development, regulatory approval and commercialization. We currently have no drug products approved for sale, and we may never obtain regulatory approval to commercialize any of our current or future product candidates. The research, testing, manufacturing, labeling, approval, sale, marketing and distribution of pet therapeutics products are subject to extensive regulation by the CVM, the EMA and other regulatory authorities in the United States and other countries, whose regulations differ from country to country. We are not permitted to market our products in the United States until we receive approval of a New Animal Drug Application, or NADA, from the CVM or in Europe until we receive approval from the EMA.

To gain approval to market a pet therapeutic for a particular species of pet, we must provide the CVM and foreign regulatory authorities with data from animal safety and effectiveness studies that adequately demonstrate the safety and efficacy of that product in the target animal for the intended indication applied for in the NADA or other regulatory filing. The development of pet therapeutics in a target animal is a lengthy, expensive and uncertain process, and delay or failure can occur at any stage of any of our development efforts. Success in prior target animal studies or in the treatment of human beings with a product candidate does not ensure that our target animal studies will be successful and the results of development efforts by other parties may not be indicative of the results of our target animal studies and other development efforts.

The CVM or any foreign regulatory bodies can delay, limit or deny approval of any of our product candidates for many reasons, including:

- we are unable to demonstrate to the satisfaction of the CVM or the applicable foreign regulatory body that the product candidate is safe and effective for the requested indication;
- the CVM or the applicable foreign regulatory body may disagree with our interpretation of data from our target animal studies and other development efforts;

Table of Contents

we may be unable to demonstrate that the product candidate s benefits outweigh any safety or other perceived risks;
the CVM or the applicable foreign regulatory body may require additional studies;
the CVM or the applicable foreign regulatory body may not approve of the formulation, labeling and/or the specifications of our current and future product candidates;
the CVM or the applicable foreign regulatory body may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract; and
the approval policies or regulations of the CVM or the applicable foreign regulatory body may significantly change in a manner rendering the data from our studies insufficient for approval.

Even if we receive approval of an NADA or foreign regulatory filing for our product candidates, the CVM or the applicable foreign regulatory body may approve our product candidates for a more limited indication than we originally requested, and the CVM may not approve the labeling that we believe is necessary or desirable for the successful commercialization of our product candidates. Any delay in obtaining, or inability to obtain, applicable regulatory approval would delay or prevent commercialization of our product candidates and would materially adversely impact our business and prospects.

Even if our current or future product candidates obtain regulatory approval, they may never achieve market acceptance or commercial success.

Even if we obtain CVM or other regulatory approvals, our current or future product candidates may not achieve market acceptance among veterinarians and pet owners, and may not be commercially successful. Market acceptance of any of our current or future product candidates for which we receive approval depends on a number of factors, including:

the safety of our products as demonstrated in our target animal studies;
the indications for which our products are approved;
the acceptance by veterinarians and pet owners of the product as a safe and effective treatment;
the proper training and administration of our products by veterinarians;
the potential and perceived advantages of our product candidates over alternative treatments, including generic medicines and products approved for use by humans that are used off label;
the cost of treatment in relation to alternative treatments and willingness to pay for our products, if approved, on the part of veterinarians and pet owners;
the willingness of pet owners to pay for our treatments, relative to other discretionary items, especially during economically challenging times;
the relative convenience and ease of administration;
the prevalence and severity of adverse side effects; and
the effectiveness of our sales and marketing efforts.

Any failure by our product candidates that obtain regulatory approval to achieve market acceptance or commercial success would adversely affect our financial results.

Development of pet therapeutics involves an expensive and lengthy process with an uncertain outcome, and results of earlier studies may not be predictive of future study results.

Development of pet therapeutics is expensive and can take many years to complete, and its outcome is inherently uncertain. Furthermore, we rely on contract research organizations, or CROs, and other third parties to ensure the proper and timely conduct of our studies and development efforts and, while we have agreements governing their committed activities, we have limited influence over their actual performance. Failure can occur at any time during the development process. The results of our initial development efforts and previous studies conducted by third parties may not be predictive of and do not ensure that our target animal studies and other development efforts will demonstrate similar results. Product candidates in our studies may fail to show the desired safety and efficacy

Table of Contents

despite showing such results in initial data or previous human or animal studies conducted by other parties. Even if our studies and other development efforts are completed, the results may not be sufficient to obtain regulatory approval for our product candidates.

Once our target animal studies commence, we may experience delays in such studies and other development efforts and we do not know whether planned studies will begin on time, need to be redesigned or be completed on schedule, if at all. Pet therapeutics studies can be delayed or aborted for a variety of reasons, including delay or failure to:

- reach agreement on acceptable terms with prospective CROs and study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- complete target animal studies due to deviations from study protocol;
- address any safety concerns that arise during the course of testing;
- address any conflicts with new or existing laws or regulations;
- add new study sites; or
- manufacture sufficient quantities of formulated drug for use in studies.

If we experience delays in the completion of, or termination of, any development efforts for our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our development efforts will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition and prospects significantly. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of our development efforts may also ultimately lead to the denial of regulatory approval of our product candidates.

Our product candidates, if approved, will face significant competition and our failure to effectively compete may prevent us from achieving significant market penetration.

The development and commercialization of pet therapeutics is highly competitive, and we expect considerable competition from major pharmaceutical, biotechnology and specialty animal health medicines companies. As a result, there are and will likely continue to be extensive research and substantial financial resources invested in the discovery and development of new pet therapeutics. Our potential competitors include large animal health companies, such as Merck Animal Health, the animal health division of Merck & Co., Inc.; Merial, the animal health division of Sanofi S.A.; Elanco, the animal health division of Eli Lilly and Company; Bayer Animal Health, the animal health division of Bayer AG; Novartis Animal Health, the animal health division of Novartis AG; Boehringer Ingelheim Animal Health, the animal health division of Boehringer Ingelheim GmbH; and Zoetis, Inc. We also compete against several animal health companies in Europe, such as the Virbac Group, Ceva Animal Health and Dechra Pharmaceuticals PLC. We are also aware of several smaller early stage companies that are developing products for use in the pet therapeutics market.

At the product level, we will face competition for AT-001 from Rimadyl, Deramaxx, Previcox and Metacam. We are not aware of any direct competitor for AT-002. We expect AT-003 will compete primarily with the non-steroidal anti-inflammatory drugs from the class of cyclooxygenase inhibitors and injectable anesthetics, such as bupivacaine, which is not approved for non-human use but is widely used by veterinarians. We may also face competition from generic medicines and products approved for use in humans that are used off label for pets.

We are an early-stage company with a limited history of operations and many of our competitors have substantially more resources than we do, including both financial and technical. In addition, many of our competitors have more experience than we have in the development, manufacture, regulation and worldwide commercialization of animal health medicines, including pet therapeutics. We are also competing with academic institutions, governmental agencies and private organizations that are conducting research in the field of animal health medicines.

Table of Contents

If we fail to attract and keep senior management and key scientific personnel, we may be unable to successfully develop any of our current or future product candidates, conduct our in-licensing and development efforts and commercialize any of our current or future product candidates.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management and scientific personnel. We are highly dependent upon our senior management, particularly Steven St. Peter, M.D., our President and Chief Executive Officer, Ernst Heinen, Ph.D., D.V.M., our Head of Drug Evaluation and Development, Louise A. Mawhinney, our Chief Financial Officer, Linda Rhodes, V.M.D, Ph.D., our Chief Scientific Officer, and Julia Stephanus, our Chief Commercial Officer, as well as our senior scientists and other members of our senior management team. The loss of services of any of these individuals could delay or prevent the successful development of our current or future product pipeline, completion of our planned development efforts or the commercialization of our product candidates. Although we have entered into employment agreements with Dr. St. Peter, Dr. Heinen, Ms. Mawhinney, Dr. Rhodes and Ms. Stephanus, these agreements do not provide for a fixed term of service.

Although we have not historically experienced unique difficulties attracting and retaining qualified employees, we could experience such problems in the future. For example, competition for qualified personnel in the animal health fields is intense due to the limited number of individuals who possess the skills and experience required by our industry. We will need to hire additional personnel as we expand our development and commercial activities. We may not be able to attract and retain quality personnel on acceptable terms, or at all. In addition, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited or that they have divulged proprietary or other confidential information, or that their former employers own their research output.

We rely completely on third-party manufacturers to manufacture the supplies for the development of our current product candidates and we intend to rely on third-party manufacturers to produce commercial quantities of any approved drug candidate.

We do not currently have, nor do we plan to acquire, the infrastructure or capability internally to manufacture the formulated drug for use in the conduct of our target animal studies. We also lack the resources and the capability to manufacture any of our product candidates on a scale necessary for commercialization. We will need to identify contract manufacturers to provide commercial supplies of the formulated drugs for AT-001 and AT-002. For AT-003, we have entered into a commercial supply agreement with Pacira Pharmaceuticals, Inc., or Pacira. Under this agreement, Pacira will provide us with finished drug product in vials, without final labeling and packaging, for which we are responsible. Pacira may terminate this supply agreement if we fail to make an undisputed payment, if we breach a material provision of the agreement, or if Pacira ceases manufacture of the product. Pacira also has the unilateral right to change its manufacturing process for the product, and if we cannot reach agreement on the terms of continued supply of AT-003 meeting current specifications and Pacira decides that it is no longer commercially reasonable to supply us with product meeting such specifications, then Pacira may terminate this supply agreement. If this supply agreement terminates for any reason, we may be unable to arrange for alternative supply of AT-003. We cannot assure you that we will be able to identify an alternate contract manufacturer for AT-003 in a timely manner on commercially reasonable terms, or at all. Additionally, we may be unable to identify and reach agreement with a contract manufacturer for AT-001 and AT-002 in a timely manner on commercially reasonable terms, or at all. Any delay in our ability to identify and contract with these third-party contract manufacturers on commercially reasonable terms, or at all, would have an adverse impact upon our business.

In July 2012, we entered into an API development agreement with RaQualia Pharma Inc., or RaQualia, pursuant to which we agreed to develop a manufacturing process for AT-001 that is cGMP compliant. We intend to fulfill this obligation through a contract manufacturer, Cambridge Major Laboratories, Inc., or CML, whom we engaged in August 2011 to develop the manufacturing process for AT-001. If our arrangement with CML terminates for any reason, we may not be able to identify an alternate contract manufacturer to develop a cGMP compliant manufacturing process for AT-001 in a timely manner, on commercially reasonable terms, or at all. Any delay in

Table of Contents

our ability to identify and contract with such an alternate contract manufacturer in a timely manner, on commercially reasonable terms, or at all, would have an adverse impact upon our business, including our relationship with RaQualia.

The facilities used by our contract manufacturers to manufacture the active pharmaceutical ingredients and formulated drugs may be subject to inspections by the CVM that will be conducted after we submit our NADA to the CVM, and approval by the CVM. We do not control the manufacturing processes used by, and we are completely dependent on, our contract manufacturers to comply with cGMP for the manufacture of both active pharmaceutical ingredients and finished drug products. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and is made in compliance with the strict regulatory requirements of the CVM or other regulatory authorities, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no control over the ability of our contract manufacturers to maintain adequate quality control and quality assurance practices and to engage qualified personnel. If the CVM or a comparable foreign regulatory authority does not approve our contract manufacturers facilities used for the manufacture of our product candidates, or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would adversely impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved.

Furthermore, we and our third-party contractors are continuing to refine and improve the manufacturing process for our product candidates, certain aspects of which are complex and unique. We may encounter difficulties with new or existing manufacturing processes, particularly if we seek to increase our manufacturing capacity significantly to support commercialization of our product candidates, if approved. Our reliance on contract manufacturers also requires us to provide trade secrets or other proprietary information to others engaged to make our drug products, increasing the possibility that our trade secrets or other proprietary information may be disclosed or misappropriated.

The commercialization of any of our product candidates could be stopped, delayed or made less profitable if third-party manufacturers fail to provide us with sufficient quantities of drug product or fail to do so at acceptable quality levels or prices and in a timely manner.

To manufacture our product candidates in the quantities that we believe would be required to meet anticipated market demand, our third-party manufacturers may need to increase manufacturing capacity, which could involve significant challenges and may require additional regulatory approvals. In addition, the development of commercial-scale manufacturing capabilities may require us and our third-party manufacturers to invest substantial additional funds and hire and retain technical personnel who have the necessary manufacturing experience. Neither we nor our third-party manufacturers may successfully complete any manufacturing scale-up activities required to increase existing manufacturing capabilities in a timely manner, or at all. Under our exclusive supply agreement for AT-003, Pacira has the obligation to provide only a mid to high double-digit percentage of our requested commercial quantity of bulk finished drug product during the first six calendar quarters following commercial launch of AT-003.

The raw materials used to manufacture our products are generally readily available and can be obtained from multiple suppliers in commercial quantities. However, we rely on our contract manufacturers to obtain any raw materials necessary to manufacture our products, and we do not have any control over the process or timing of the acquisition of these materials. Furthermore, if there is a disruption to our or our third-party manufacturers relevant operations, we will have no other means of producing our product candidates until they restore the affected facilities or we or they procure alternative manufacturing facilities or raw materials. Additionally, any damage to or destruction of our third-party manufacturers facilities or equipment may significantly impair our ability to manufacture product candidates on a timely basis.

Table of Contents

We currently rely on third parties to conduct all our target animal studies and certain other development efforts. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be unable to obtain regulatory approval for or commercialize our current or future product candidates.

We currently do not conduct our target animal studies, and we rely on CROs to conduct these studies. The third parties with whom we contract for the execution of our studies play a significant role in the conduct of these studies and the subsequent collection and analysis of data. However, these third parties are not our employees, and except for contractual duties and obligations, we have limited ability to control the amount or timing of resources that they devote to our programs. Although we rely on these third parties to conduct our studies, we remain responsible for ensuring that each of our studies is conducted in accordance with the development plan and protocol. Moreover, the CVM and foreign regulatory authorities require us to comply with regulations and standards, commonly referred to as current good clinical practices, or cGCPs, or good laboratory practices, or GLPs, for conducting, monitoring, recording and reporting the results of our studies to ensure that the data and results are scientifically credible and accurate.

In addition, the execution of target animal studies and the subsequent compilation and analysis of the data produced requires coordination among various parties. In order for these functions to be carried out effectively and efficiently, it is imperative that these parties communicate and coordinate with one another. Moreover, these third parties may also have relationships with other commercial entities, some of which may compete with us. Many of our agreements with these third parties may be terminated by these third parties upon as little as 30 days prior written notice of a material breach by us that is not cured within 30 days. Many of these agreements may also be terminated by such third parties under certain other circumstances, including our insolvency or our failure to comply with applicable laws. In general, these agreements require such third parties to reasonably cooperate with us at our expense for an orderly winding down of services of such third parties under the agreements. If the third parties conducting our target animal studies do not perform their contractual duties or obligations, experience work stoppages, do not meet expected deadlines, terminate their agreements with us or need to be replaced, or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our development protocols or cGCPs, or for any other reason, we may need to enter into new arrangements with alternative third parties, which could be difficult and costly, and our target animal studies may be extended, delayed or terminated or may need to be repeated. If any of the foregoing were to occur, the regulatory approval for and commercialization of the product candidate being tested in such studies may be delayed or require us to utilize additional resources.

Our ability to market our product candidates in the United States, if approved, will be limited to use for the treatment of the indications for which they are approved, and if we want to expand the indications for which we may market our product candidates, we will need to obtain additional CVM approvals, which may not be granted.

We expect to seek CVM approval in the United States for AT-001 for the treatment of pain and inflammation associated with osteoarthritis in dogs and for pain management in cats, AT-002 for the treatment of inappetence in cats and dogs, and AT-003 for the treatment of post-operative pain in cats and dogs. If our product candidates are approved, the CVM will restrict our ability to market or advertise them for the treatment of indications other than the indications for which they are approved, which could limit their adoption by veterinarian and pet owners. We may attempt to develop, promote and commercialize new treatment indications and protocols for our product candidates in the future, but we cannot predict when or if we will receive the approvals required to do so. In addition, we would be required to conduct additional target animal studies to support our applications, which would utilize additional resources and may produce results that do not result in CVM approvals. If we do not obtain additional CVM approvals, our ability to expand our business in the United States will be limited.

Table of Contents

We currently have no sales organization. If we are unable to establish sales capabilities on our own or through third parties, we may not be able to market and sell our current or future product candidates, if approved, or generate product revenue.

We currently do not have a sales organization. In order to commercialize any of our current or future product candidates in the United States and any jurisdictions outside the United States, we must build our marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and we may not be successful in doing so. If our current or any future product candidates receive regulatory approval, we expect to establish a direct sales organization in the United States, complemented by distributors, to commercialize our product candidates, which will be expensive and time-consuming. Outside of the United States we intend to partner with companies with an established commercial presence to market our products in those locations. If we are unable to enter into such arrangements on acceptable terms or at all, we may not be able to successfully commercialize our current product candidates or any future product candidates that receive regulatory approval. We have no prior experience in the marketing, sale and distribution of pet therapeutics and there are significant risks involved in building and managing a sales organization, including our ability to hire, retain and motivate qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel, and effectively oversee a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. If we are not successful in commercializing any of our current or future product candidates, either on our own or through collaborations with one or more distributors, our future product revenue will suffer and we would incur significant additional losses.

We will need to increase the size of our organization, and we may experience difficulties in managing growth.

As of March 31, 2013, we had 16 full-time employees. We will need to continue to expand our managerial, operational, financial and other resources in order to manage our operations and target animal studies, continue our development activities and commercialize any of our current or future product candidates. Our management and personnel, systems and facilities currently in place may not be adequate to support this future growth. Our need to effectively execute our growth strategy requires that we:

- manage our target animal studies and other development efforts effectively;
- identify, recruit, maintain, motivate and integrate additional employees;
- manage our internal development efforts effectively while carrying out our contractual obligations to third parties; and
- continue to improve our operational, financial and management controls, reporting systems and procedures.

We will incur significant costs as a result of operating as a public company, and our management will devote substantial time to new compliance initiatives.

As a privately-held company, we were not required to comply with certain corporate governance and financial reporting practices and policies required of a publicly-traded company. As a publicly-traded company, we will incur significant legal, accounting and other expenses that we were not required to incur in the recent past, particularly after we are no longer an emerging growth company as defined under the Jumpstart Our Business Start-ups Act of 2012, or the JOBS Act. In addition, new and changing laws, regulations and standards relating to corporate governance and public disclosure, including the Dodd-Frank Wall Street Reform and Consumer Protection Act and the rules and regulations promulgated and to be promulgated thereunder, as well as under the Sarbanes-Oxley Act, the JOBS Act, and the rules and regulations of the U.S. Securities and Exchange Commission, or SEC, and The NASDAQ Global Market, have created uncertainty for public companies and increased our costs and time that our board of directors and management must devote to complying with these rules and regulations. We expect these rules and regulations to increase our legal and financial compliance costs and lead to a diversion of management time and attention from revenue generating activities.

Table of Contents

Furthermore, the need to establish the corporate infrastructure demanded of a public company may divert management s attention from implementing our growth strategy, which could prevent us from improving our business, results of operations and financial condition. We have made, and will continue to make, changes to our internal controls and procedures for financial reporting and accounting systems to meet our reporting obligations as a publicly-traded company. However, the measures we take may not be sufficient to satisfy our obligations as a publicly-traded company.

For as long as we remain an emerging growth company as defined in the JOBS Act, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies. These exceptions provide for, but are not limited to, relief from the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, less extensive disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements to hold a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved and an extended transition period for complying with new or revised accounting standards. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We may remain an emerging growth company for up to five years. See Prospectus Summary Implications of Being an Emerging Growth Company. To the extent we are no longer eligible to use exemptions from various reporting requirements under the JOBS Act, we may be unable to realize our anticipated cost savings from those exemptions.

Our internal control over financial reporting does not currently meet the standards required by Section 404 of the Sarbanes-Oxley Act, and failure to achieve and maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our business and share price.

As a privately-held company, we were not required to evaluate our internal control over financial reporting in a manner that meets the standards of publicly-traded companies required by Section 404 of the Sarbanes-Oxley Act, or Section 404. We anticipate being required to meet these standards in the course of preparing our financial statements as of and for the year ended December 31, 2014, and our management will be required to report on the effectiveness of our internal control over financial reporting for such year. Additionally, under the recently enacted JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act until we are no longer an emerging growth company. The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation.

A material weakness in internal control was identified in connection with the preparation of our financial statements and the audit of our financial results for 2011. We determined that we had a material weakness relating to accounting for complex transactions and cut-off of expenses. During 2012, we added personnel to our accounting staff with appropriate levels of experience to remediate the aforementioned material weakness. As of December 31, 2012, we determined the material weakness had been remediated as a result of the actions taken above and the resulting improvements in our internal controls.

In connection with the implementation of the necessary procedures and practices related to internal control over financial reporting, we may identify deficiencies that we may not be able to remediate in time to meet the deadline imposed by the Sarbanes-Oxley Act for compliance with the requirements of Section 404. In addition, we may encounter problems or delays in completing the implementation of any requested improvements and receiving a favorable attestation in connection with the attestation provided by our independent registered public accounting firm. We will be unable to issue securities in the public markets through the use of a shelf registration statement if we are not in compliance with Section 404. Furthermore, failure to achieve and maintain an effective internal control environment could have a material adverse effect on our business and share price and could limit our ability to report our financial results accurately and timely.

Table of Contents

Changes in distribution channels for pet therapeutics could negatively impact our market share, margins and distribution of our products.

In most markets, pet owners typically purchase their pet therapeutics directly from veterinarians. Pet owners increasingly could purchase pet therapeutics from sources other than veterinarians, such as Internet-based retailers, big-box retail stores or other over-the-counter distribution channels. This trend has been demonstrated by the significant shift away from the veterinarian distribution channel in the sale of parasiticides and vaccines in recent years. Pet owners also could decrease their reliance on, and visits to, veterinarians as they rely more on Internet-based animal health information. Because we expect to market our pet prescription products through the veterinarian distribution channel, any decrease in visits to veterinarians by pet owners could reduce our market share for such products and materially adversely affect our operating results and financial condition. In addition, pet owners may substitute human health products for pet therapeutics if human health products are deemed to be lower-cost alternatives.

Legislation has also been proposed in the United States, and may be proposed in the United States or abroad in the future, that could impact the distribution channels for our pet products. For example, such legislation may require veterinarians to provide pet owners with written prescriptions and disclosure that the pet owner may fill prescriptions through a third party, which may further reduce the number of pet owners who purchase their pet therapeutics directly from veterinarians. Such requirements may lead to increased use of generic alternatives to our products or the increased substitution of our products with other pet therapeutics or human health products if such other products are deemed to be lower-cost alternatives. Many states already have regulations requiring veterinarians to provide prescriptions to pet owners upon request and the American Veterinary Medical Association has long-standing policies in place to encourage this practice.

Over time, these and other competitive conditions may increase our reliance on Internet-based retailers, big-box retail stores or other over-the-counter distribution channels to sell our pet products. Any of these events could materially adversely affect our operating results and financial condition.

Consolidation of our customers could negatively affect the pricing of our products.

Veterinarians are our primary customers. In recent years, there has been a trend towards the concentration of veterinarians in large clinics and hospitals. If this trend towards consolidation continues, these customers could attempt to improve their profitability by leveraging their buying power to obtain favorable pricing. The resulting decrease in our prices could have a material adverse effect on our operating results and financial condition.

Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations.

As of December 31, 2012, we had net operating loss carryforwards, or NOLs, for federal and state income tax purposes of $1.1 million and $1.0 million, respectively, which may be available to offset our future taxable income, if any. Our federal NOLs begin to expire in 2031, and our state NOLs begin to expire in 2021. In general, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an ownership change is subject to limitations on its ability to use its pre-change net operating loss carryforwards to offset future taxable income. If the Internal Revenue Service, or IRS, challenges our analysis that our existing NOLs will not expire before utilization due to previous ownership changes, or if we undergo an ownership change in connection with or after this public offering, our ability to use our NOLs could be limited by Section 382 of the Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Code. Furthermore, our ability to use NOLs of companies that we may acquire in the future may be subject to limitations. For these reasons, we may not be able to use a material portion of the NOLs reflected on our balance sheet, even if we attain profitability.

Table of Contents

Generic products may be viewed as more cost-effective than our products.

We may face competition from products produced by other companies, including generic alternatives to any of our products. We will depend on patents to provide us with exclusive marketing rights for some of our products. As of April 30, 2013, we licensed approximately 27 issued patents or pending patent applications covering various composition of matter claims as well as methods of treatment. Our patent protection for these products extends for varying periods in accordance with the dates of filing or grant, the legal life of patents in countries in which patents are granted and the various terms and conditions of the respective agreement under which such patents are licensed. The key patent that we believe covers the crystalline form of the AT-001 compound expires on February 21, 2027, and the key patent that we believe covers certain methods of producing the AT-002 compound expires on February 1, 2020. Each of these patents may be eligible for an award of up to five years of patent term extension upon FDA approval of a commercial use of the corresponding product. The key patents that we believe cover certain compositions and methods of producing the AT-003 compound expire on September 18, 2018. The remainder of the patents in our current patent portfolio expire at various times between late 2013 and 2031, with a pending provisional application that upon issuance would expire in 2033. The protection afforded, which varies from country to country, is limited by the scope and applicable terms of our patents and the availability of legal remedies in the applicable country. As a result, we may face competition from lower-priced generic alternatives to many of our products. Generic competitors are becoming more aggressive in terms of pricing, and generic products are an increasing percentage of overall animal health sales in certain regions. In addition, private label products may compete with our products. If pet therapeutics customers increase their use of new or existing generic or private label products, our operating results and financial condition could be materially adversely affected.

Pet therapeutics are subject to unanticipated safety or efficacy concerns, which may harm our reputation.

Unanticipated safety or efficacy concerns can arise with respect to pet therapeutics, whether or not scientifically or clinically supported, leading to product recalls, withdrawals or suspended or declining sales, as well as product liability, and other claims. In addition, we depend on positive perceptions of the safety and quality of our products, and pet therapeutics generally, by our customers, veterinarians and end-users, and such concerns may harm our reputation. These concerns and the related harm to our reputation could materially adversely affect our operating results and financial condition, regardless of whether such reports are accurate.

Risks Related to Intellectual Property

We currently own one patent application, license the issued patents covering our product candidates and have limited rights to prosecute and enforce those licensed patents.

We currently own one patent application relating to our AT-002 product candidate that covers a method of treating inappetence using AT-002, and we cannot assure you that a patent based on this patent application will ever be issued. We do not own any patents or patent applications relating to AT-001 or AT-003. We have exclusive license agreements in the field of animal health with RaQualia, pursuant to which we license key intellectual property relating to AT-001 and AT-002, and with Pacira pursuant to which we license key intellectual property relating to AT-003. The patents and patent applications that we license cover various composition of matter claims as well as methods of treatment relating to our licensed patents. These patents are expected to expire at various times between late 2013 and 2031.

Under each of these agreements, RaQualia and Pacira retain ownership over the licensed patents and patent applications and retain control over the maintenance and prosecution of the licensed patents and patent applications. In the case of AT-003, we have no control over the manner in which Pacira chooses to maintain or prosecute its patent and patent applications and have no right to continue to prosecute any patents or patent applications that Pacira elects to abandon.

Although we have the right to enforce patents licensed from RaQualia against third-party infringement in the animal health field, we do not have the right to enforce patents licensed from Pacira against any third-party infringement, although we have certain limited rights to request our licensor to enforce such patents against infringement.

Table of Contents

If we cannot obtain ownership of issued patents covering our product candidates or we cannot prosecute or enforce licensed patents, our business, results of operations, financial condition and prospects would be adversely affected.

If we fail to comply with our obligations under our intellectual property licenses with third parties, we could lose license rights that are essential to our business.

We are party to license agreements with RaQualia and Pacira for our product candidates that are essential to our business. These license agreements impose various payment and performance obligations on us. If we fail to comply with these obligations, RaQualia or Pacira, as applicable, may have the right to terminate the relevant license agreement, in which event we would not be able to develop or commercialize AT-001, AT-002 and/or AT-003, as the case may be.

If we lose such license rights, our business, results of operations, financial condition and prospects would be adversely affected. We may enter into additional licenses in the future and if we fail to comply with obligations under those agreements, we could suffer adverse consequences.

We may not own any intellectual property rights we develop with respect to AT-003 or be able to share our licensed patent rights to AT-003 with future collaborators.

Our license agreement with Pacira contains certain obligations and restrictions on our ability to develop and commercialize AT-003. All of the intellectual property rights that we develop with respect to AT-003 will be owned by Pacira upon termination of this license agreement. If we wish to enter into any collaboration agreements relating to AT-003, Pacira has the right to approve all of our sublicensees. Furthermore, Pacira has a right of first negotiation for shared commercialization rights to AT-003 in the United States. These restrictions may impair or delay our ability to engage third parties to commercialize AT-003.

We may become subject to third parties claims alleging infringement of patents and proprietary rights or seeking to invalidate our patents or proprietary rights, which would be costly, time-consuming and, if successfully asserted against us, delay or prevent the development and commercialization of our current or future product candidates.

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the field of pet therapeutics, as well as patent challenge proceedings, including interference and administrative law proceedings before the United States Patent and Trademark Office, or the U.S. PTO, and oppositions and other comparable proceedings in foreign jurisdictions. Recently, under U.S. patent reform laws, new procedures including inter partes review and post grant review have been implemented as of March 16, 2013. As stated below, the novel implementation of such reform laws presents uncertainty regarding the outcome of challenges to our patents in the future.

We cannot assure you that any of our current or future product candidates will not infringe existing or future patents. We may be unaware of patents that have already issued that a third party might assert are infringed by one of our current or future product candidates. Because patent applications can take many years to issue and may be confidential for eighteen months or more after filing, there may be applications now pending of which we are unaware and which may later result in issued patents that we may infringe by commercializing any of our current or future product candidates. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Moreover, we may face claims from non-practicing entities, which have no relevant product revenue and against whom our own patent portfolio may thus have no deterrent effect.

We may be subject to third-party claims in the future against us or our collaborators that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages, including treble damages and attorney s fees if we are found to be willfully infringing a third party s patents. If a patent infringement suit were brought against us or our collaborators, we or they could be forced to stop or delay research,

Table of Contents

development, manufacturing or sales of the product candidate that is the subject of the suit. As a result of patent infringement claims, or in order to avoid potential claims, we or our collaborators may choose to seek, or be required to seek, a license from the third party and would most likely be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or our collaborators were able to obtain a license, the rights may be nonexclusive, which would give our competitors access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or forced to redesign it, or to cease some aspect of our business operations if, as a result of actual or threatened patent infringement claims, we or our collaborators are unable to enter into licenses on acceptable terms. Even if we are successful in defending such claims, infringement and other intellectual property litigation can be expensive and time-consuming to litigate and divert management s attention from our core business. Any of these events could harm our business significantly.

In addition to infringement claims against us, if third parties have prepared and filed patent applications in the United States that also claim technology to which we have rights, we may have to participate in interference proceedings in the U.S. PTO to determine the priority of invention. Third parties may also attempt to initiate reexamination, post grant review or inter partes review of our patents in the U.S. PTO. We may also become involved in similar opposition proceedings in the European Patent Office or similar offices in other jurisdictions regarding our intellectual property rights with respect to our products and technology.

If our efforts to protect the proprietary nature of the intellectual property related to any of our current or future product candidates are not adequate, we may not be able to compete effectively in our market.

We rely upon a combination of patents, trade secret protection, confidentiality and license agreements to protect the intellectual property related to our current product candidates and our development programs.

Composition-of-matter patents on the active pharmaceutical ingredient are generally considered to be the strongest form of intellectual property protection for pharmaceutical products, including pet therapeutics, as such patents provide protection without regard to any particular method of use or manufacture. We cannot be certain that the claims in our patent application covering composition-of-matter of our product candidates will be considered patentable by the U.S. PTO and courts in the United States, or by the patent offices and courts in foreign countries. Method-of-use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our product for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for our targeted indications, veterinarians may recommend that pet owners use these products off label, or pet owners may do so themselves. Although off-label use may infringe or contribute to the infringement of method-of-use patents, the practice is common and such infringement is difficult to prevent or prosecute.

The strength of patents in the field of pet therapeutics involves complex legal and scientific questions and can be uncertain. The patent applications that we own or license may fail to result in issued patents in the United States or in other foreign countries. Even if the patents do successfully issue, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing around our claims. If the breadth or strength of protection provided by the patent applications we own, in-license or pursue with respect to any of our current or future product candidates is threatened, it could threaten our ability to commercialize any of our current or future product candidates. Further, if we encounter delays in our development efforts, the period of time during which we could market any of our current or future product candidates under patent protection would be reduced. Since patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our product candidates. Furthermore, for patent applications in which claims are entitled to a priority date before March 16, 2013, an interference proceeding can be provoked by a third party or instituted by the U.S. PTO to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. For patent applications containing a claim not entitled to a priority date before March 16, 2013, there is a greater level of uncertainty in the patent law with the

Table of Contents

passage of the America Invents Act, which brings into effect significant changes to the U.S. patent laws that have yet to be well defined, and which introduces new procedures for challenging pending patent applications and issued patents. A primary change under this reform is creating a first to file system in the United States, which requires us to minimize the time from invention to filing of a patent application.

Even where laws provide protection, costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and the outcome of such litigation would be uncertain. Moreover, any actions we may bring to enforce our intellectual property against our competitors could provoke them to bring counterclaims against us, and some of our competitors have substantially greater intellectual property portfolios than we have.

We also rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our product development processes that involve proprietary know-how, information or technology that is not covered by patents. Although we require all of our employees to assign their inventions to us, and endeavor to execute confidentiality agreements with all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information or technology, we cannot be certain that we have executed such agreements with all parties who may have helped to develop our intellectual property or had access to our proprietary information, nor that our agreements will not be breached. We cannot guarantee that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent material disclosure of the intellectual property related to our technologies to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, results of operations and financial condition.

Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, thus eroding our competitive position in our market.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents, should any issue to us, or the patents of our licensors that are licensed to us. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, if we or one of our future collaborators were to initiate legal proceedings against a third party to enforce a patent covering our current product candidates, or one of our future products, the defendant could counterclaim that our patent is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the U.S. PTO, or made a materially misleading statement, during prosecution. Third parties may also raise similar claims before the U.S. PTO, even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our current or future product candidates. Such a loss of patent protection could have a material adverse impact on our business.

Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. Furthermore, because of the substantial amount of discovery required in

Table of Contents

connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be unsuccessful, it could have an adverse effect on the price of our common stock. Finally, we may not be able to prevent, alone or with the support of our licensors, misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity. Therefore, obtaining and enforcing biopharmaceutical patents is costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and is currently implementing wide-ranging patent reform legislation. The Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the U.S. PTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing licensed patents and patents that we might obtain in the future.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

The U.S. PTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case, which would have an adverse effect on our business.

We have filed a trademark application for our company name and have not yet registered trademarks for commercial trade names for our current product candidates in the United States or any other countries, and failure to secure those registrations could adversely affect our business.

We have filed a trademark application for our company name, although we cannot make assurances that the trademark will become registered. We have not yet registered any trademarks for commercial trade names for any of our current product candidates in the United States or any other countries. During trademark registration proceedings, we may receive rejections. Although we are given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the U.S. PTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. Moreover, any name we propose to use with our product candidates in the United States must be approved by the CVM, regardless of whether we have registered it, or applied to register it, as a trademark. The CVM typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the CVM objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the CVM.

Table of Contents

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on product candidates throughout the world would be prohibitively expensive. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection, but where enforcement is not as strong as that in the United States. These products may compete with our products in jurisdictions where we do not have any issued or licensed patents and our patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.

We have received confidential and proprietary information from third parties. In addition, we employ individuals who were previously employed at other biotechnology, pharmaceutical or animal health companies. We may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise improperly used or disclosed confidential information of these third parties or our employees former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees.

Risks Related to Government Regulation

The regulatory approval process is uncertain, requires us to utilize significant resources, and may prevent us or our collaboration partners from obtaining approvals for the commercialization of some or all of our drug candidates.

The research, testing, manufacturing, labeling, approval, selling, import, export, marketing and distribution of pet therapeutics are subject to extensive regulation by the CVM and other regulatory authorities in the United States and other countries, which regulations differ from country to country. Neither we nor any collaboration partner is permitted to market any of our current or future product candidates in the United States until we receive approval of an NADA from the CVM. We have not submitted an application for or received marketing approval for our current product candidates. Obtaining approval of an NADA can be an uncertain process that requires us to utilize significant resources. In addition, failure to comply with CVM and other applicable United States and foreign regulatory requirements may subject us to administrative or judicially imposed sanctions, including: warning letters, civil and criminal penalties, injunctions, withdrawal of approved products from the market, product seizure or detention, product recalls, total or partial suspension of production, and refusal to approve pending NADAs or supplements to approved NADAs.

To gain approval to market a pet therapeutic for a particular species of pet, we must provide the CVM and foreign regulatory authorities with data from animal safety and effectiveness studies that adequately demonstrate the safety and efficacy of that product in the target animal for the intended indication applied for in the NADA or other regulatory filing. The development of pet therapeutics in a target animal is a lengthy, expensive and uncertain process, and delay or failure can occur at any stage of any of our development efforts. Success in prior target animal studies or in the treatment of human beings with a product candidate does not ensure that our target animal studies will be successful and the results of development efforts by other parties may not be indicative of the results of our target animal studies and other development efforts.

Table of Contents

Regulatory approval of an NADA or supplement NADA is not guaranteed, and the approval process requires us to utilize significant resources, may take several years, and is subject to the substantial discretion of the CVM. Despite the time and expense exerted, failure can occur at any stage, and we could encounter problems that cause us to abandon or repeat studies, or perform additional studies. If any of our current or future product candidates fails to demonstrate safety and efficacy in our studies, or for any other reason does not gain regulatory approval, our business and results of operations will be materially and adversely harmed.

Even if we receive regulatory approval for any of our current or future product candidates, we will be subject to ongoing CVM obligations and continued regulatory review, which may result in significant additional expense. Additionally, any product candidates, if approved, will be subject to labeling and manufacturing requirements and could be subject to other restrictions. Failure to comply with these regulatory requirements or the occurrence of unanticipated problems with our products could result in significant penalties.

Any regulatory approvals that we or any of our collaborators receive for any of our current or future product candidates may be subject to conditions of approval or limitations on the approved indicated uses for which the product may be marketed, or may contain requirements for potentially costly surveillance to monitor the safety and efficacy of the product candidate. In addition, if the CVM approves any of our current or future product candidates, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP, GLP and good clinical practices, or GCP, for any studies that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, warning letters or holds on target animal studies;
- refusal by the CVM to approve pending applications or supplements to approved applications filed by us or our strategic collaborators, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The CVM s policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business.

Failure to obtain regulatory approvals in foreign jurisdictions for our product candidates would prevent us from marketing our products internationally.

In order to market any product outside of the United States, including in the EEA (which is comprised of the 27 member states of the European Union plus Norway, Iceland and Liechtenstein) and many other foreign jurisdictions, separate regulatory approvals are required. More concretely, in the EEA, pet therapeutics can only be commercialized after obtaining a Marketing Authorization, or MA. Before granting the MA, the EMA or the competent authorities of the member states of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

The approval procedures vary among countries and can involve additional studies and testing, and the time required to obtain approval may differ from that required to obtain CVM approval. Animal studies conducted in one

Table of Contents

country may not be accepted by regulatory authorities in other countries. Approval by the CVM does not ensure approval by regulatory authorities in other countries, and approval by one or more foreign regulatory authorities does not ensure approval by regulatory authorities in other foreign countries or by the CVM. However, a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. The foreign regulatory approval process may include all of the risks associated with obtaining CVM approval. We may not be able to file for regulatory approvals or to do so on a timely basis and, even if we do file it, we may not receive necessary approvals to commercialize our products in any market.

If approved, any of our current or future products may cause or contribute to adverse medical events that we are required to report to the CVM and regulatory authorities in other countries and, if we fail to do so, we could be subject to sanctions that would materially harm our business.

If we are successful in commercializing any of our current or future products, regulations of the CVM and of the regulatory authorities in other countries require that we report certain information about adverse medical events if those products may have caused or contributed to those adverse events. The timing of our obligation to report would be triggered by the date we become aware of the adverse event as well as the nature of the event. We may fail to report adverse events we become aware of within the prescribed timeframe. We may also fail to appreciate that we have become aware of a reportable adverse event, especially if it is not reported to us as an adverse event or if it is an adverse event that is unexpected or removed in time from the use of our products. If we fail to comply with our reporting obligations, the CVM and regulatory authorities in other countries could take action including criminal prosecution, the imposition of civil monetary penalties, seizure of our products, or delay in approval or clearance of future products.

Legislative or regulatory reforms with respect to pet therapeutics may make it more difficult and costly for us to obtain regulatory clearance or approval of any of our current or future product candidates and to produce, market, and distribute our products after clearance or approval is obtained.

From time to time, legislation is drafted and introduced in the U.S. Congress that could significantly change the statutory provisions governing the testing, regulatory clearance or approval, manufacture, and marketing of regulated products. In addition, CVM regulations and guidance are often revised or reinterpreted by the CVM in ways that may significantly affect our business and our products. Similar changes in laws or regulations can occur in other countries. Any new regulations or revisions or reinterpretations of existing regulations in the United States or in other countries. may impose additional costs or lengthen review times of any of our current or future product candidates. We cannot determine what effect changes in regulations, statutes, legal interpretation or policies, when and if promulgated, enacted or adopted may have on our business in the future. Such changes could, among other things, require:

- changes to manufacturing methods;
- recall, replacement, or discontinuance of certain products; and
- additional record keeping.

Each of these would likely entail substantial time and cost and could materially harm our financial results. In addition, delays in receipt of or failure to receive regulatory clearances or approvals for any future products would harm our business, financial condition, and results of operations.

Our research and development relies on evaluations in animals, which may become subject to bans or additional regulations.

As a biopharmaceutical company with a focus on pet therapeutics, the evaluation of our existing and new products in animals is required to register our products. Animal testing in certain industries has been the subject of controversy and adverse publicity. Some organizations and individuals have attempted to ban animal testing or encourage the adoption of additional regulations applicable to animal testing. To the extent that the activities of such

Table of Contents

organizations and individuals are successful, our research and development, and by extension our operating results and financial condition, could be materially adversely affected. In addition, negative publicity about us or our industry could harm our reputation.

Risks Related to Our Common Stock and this Offering

Our stock price may be volatile and you may not be able to resell shares of our common stock at or above the price you paid.

The trading price of our common stock following this offering could be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include those discussed in this Risk Factors section of this prospectus and others, such as:

- results from, and any delays in, our current and future target animal studies;
- announcements of regulatory approval or disapproval of any of our current or future product candidates;
- failure or discontinuation of any of our research programs;
- the termination of any of our existing license agreements;
- announcements relating to future licensing or development agreements;
- delays in the commercialization of our current or future product candidates;
- acquisitions and sales of new product candidates, technologies or businesses;
- manufacturing and supply issues related to our current or future product candidates for our development programs and commercialization;
- quarterly variations in our results of operations or those of our future competitors;
- changes in earnings estimates or recommendations by securities analysts;
- announcements by us or our competitors of new product candidates, significant contracts, commercial relationships, acquisitions or capital commitments;
- developments with respect to intellectual property rights;
- our commencement of, or involvement in, litigation;
- any major changes in our board of directors or management;
- new legislation in the United States relating to the sale or pricing of pet therapeutics;
- CVM or other U.S. or foreign regulatory actions affecting us or our industry;
- product liability claims, other litigation or public concern about the safety of our product candidates or future products;
- market conditions in the animal health sector and in the pet therapeutics market; and
- general economic conditions in the United States and abroad.

In addition, the stock market in general, or the market for stocks in our industry or industries related to our industry, may experience extreme volatility unrelated to the operating performance of the issuer. These broad market fluctuations may adversely affect the trading price or liquidity of our common stock. In the past, when the market price of a stock has been volatile, holders of that stock have sometimes instituted securities class action litigation against the issuer. If any of our stockholders were to bring such a lawsuit against us, we could incur substantial costs defending the lawsuit and the attention of our management would be diverted from the operation of our business.

An active, liquid and orderly market for our common stock may not develop, and you may not be able to resell your common stock at or above the public offering price.

Prior to this offering, there has been no public market for shares of our common stock, and an active public market for our shares may not develop or be sustained after this offering. We and the representatives of the underwriters will determine the initial public offering price of our common stock through negotiation. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not develop following completion of this offering or, if it is developed, may not be sustained. The lack of an active market may impair your ability to sell your shares

Table of Contents

at the time you wish to sell them or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to in-license or acquire other product candidates, businesses or technologies using our shares as consideration.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no or few securities or industry analysts commence coverage of us, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our target animal studies and operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

We are an emerging growth company, as defined in the JOBS Act, and as a result of the reduced disclosure and governance requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.0 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30, and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price of our common stock is substantially higher than the pro forma net tangible book value per share of our common stock before giving effect to this offering. Accordingly, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately $3.68 per share, representing the difference between the assumed initial public offering price of $6.00 per share and our pro forma as adjusted net tangible book value as of March 31, 2013. In addition, following this offering, and assuming the sale by us of 5,500,000 shares of our common stock in this offering at the assumed initial public offering price of $6.00 per share, purchasers in this offering will have contributed approximately 43.3% of the total gross consideration paid by stockholders to us to purchase shares of our common stock through March 31, 2013, but will own only approximately 28.0% of the shares of common stock outstanding immediately after this offering. Furthermore, if the underwriters exercise their option to purchase additional shares of our common stock or outstanding options are exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section in this prospectus entitled Dilution.

Table of Contents

If we sell shares of our common stock in future financings, stockholders may experience immediate dilution and, as a result, our stock price may decline.

We may from time to time issue additional shares of common stock at a discount from the current trading price of our common stock. As a result, our stockholders would experience immediate dilution upon the sale of any shares of our common stock at such discount. In addition, as opportunities present themselves, we may enter into financing or similar arrangements in the future, including the issuance of debt securities, preferred stock or common stock. If we issue common stock or securities convertible into common stock, our common stockholders would experience additional dilution and, as a result, our stock price may decline.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Upon the closing of this offering and based on shares outstanding as of March 31, 2013 and assuming our executive officers and directors or their affiliates purchase all the shares they have indicated an interest in purchasing in this offering, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates will beneficially own approximately 65% of our voting stock (assuming no exercise of the underwriters option to purchase additional shares of our common stock and no exercise of outstanding options). These stockholders will have the ability to influence us through this ownership position and may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approvals of any merger, sale of assets or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based upon the number of shares outstanding as of March 31, 2013, upon the closing of this offering, we will have outstanding a total of 20,631,344 shares of common stock, which includes 1,021,578 shares of restricted stock that are not considered outstanding for accounting purposes, assuming (i) the conversion of all outstanding shares of our convertible preferred stock into 12,596,115 shares of our common stock, which we expect to automatically occur immediately prior to the closing of the offering, (ii) the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock upon the closing of this offering in satisfaction of accumulated and unpaid dividends, as required by the terms of our series A, B and C convertible preferred stock, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed initial public offering price of $6.00 per share, (iii) no exercise of the underwriters option to purchase additional shares of our common stock, and (iv) no exercise of options outstanding as of March 31, 2013. Of these shares, approximately 5,500,000 shares of our common stock, plus any shares sold upon exercise of the underwriters option to purchase additional shares of our common stock, will be freely tradable, without restriction, in the public market immediately following this offering. Stifel, Nicolaus & Company, Incorporated and Lazard Capital Markets LLC, however, may, in their sole discretion, permit our officers, directors and other stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. After the lock-up agreements expire, up to an additional 16,423,010 shares of common stock, subject to vesting schedules, will be eligible for sale in the public market, 11,566,082 of which shares are held by directors, executive officers and other affiliates and will be subject to vesting schedules or volume limitations under Rule 144 under the Securities Act.

In addition, shares of common stock that are either subject to outstanding options or reserved for future issuance under our equity incentive plans will become eligible for sale in the public market to the extent permitted by the

Table of Contents

provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of 13,569,481 shares of our common stock, or approximately 90% of our total outstanding common stock as of March 31, 2013, will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to vesting schedules and to the lock-up agreements described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

We have broad discretion to determine how to use the funds raised in this offering, and may use them in ways that may not enhance our operating results or the price of our common stock.

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. We intend to use the net proceeds of this offering for the development of our commercial infrastructure and other general corporate and working capital purposes, including the potential in-licensing and initial development of additional product candidates. However, our use of these proceeds may differ substantially from our current plans. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

Provisions in our charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.

Our restated certificate of incorporation and amended and restated bylaws that will be in effect immediately prior to the consummation of this offering will contain provisions that could delay or prevent changes in control or changes in our management without the consent of our board of directors. These provisions will include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;
- the required approval of the holders of at least two-thirds of the shares entitled to vote at an election of directors to adopt, amend or repeal our bylaws or repeal the provisions of our restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of the board of directors, the chief executive officer, the president or the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors; and
- advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer s own slate of directors or otherwise attempting to obtain control of us.

Table of Contents

In addition, these provisions would apply even if we were to receive an offer that some stockholders may consider beneficial.

We are also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction. For a description of our capital stock, see the section in this prospectus entitled Description of Capital Stock.

We do not currently intend to pay dividends on our common stock, and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We do not currently intend to pay any cash dividends on our common stock for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Additionally, the terms of our credit facility restrict our ability to pay dividends. Therefore, you are not likely to receive any dividends on your common stock for the foreseeable future. Since we do not intend to pay dividends, your ability to receive a return on your investment will depend on any future appreciation in the market value of our common stock. There is no guarantee that our common stock will appreciate or even maintain the price at which our holders have purchased it.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, business strategy, prospective products, product approvals, research and development costs, timing and likelihood of success, plans and objectives of management for future operations, and future results of current and anticipated products are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as may, will, should, expect, plan, aim, anticipate, could, target, project, contemplate, believe, estimate, predict, potential or continue or the negative of these terms or other similar expressio forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described under the sections in this prospectus entitled Risk Factors and Management s Discussion and Analysis of Financial Condition and Results of Operations and elsewhere in this prospectus. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds to us from the sale of the common stock that we are offering will be approximately $28.2 million (or $32.8 million if the underwriters exercise their option to purchase additional shares in full), assuming an initial public offering price of $6.00 per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each $1.00 increase (decrease) in the assumed initial public offering price of $6.00 per share would increase (decrease) the net proceeds to us from this offering by approximately $5.1 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 1.0 million in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $5.6 million, assuming the assumed initial public offering price stays the same.

We intend to use the net proceeds of this offering for the development of our commercial infrastructure and other general corporate and working capital purposes, including the potential in-licensing and initial development of additional product candidates. We believe that our current cash, cash equivalents and short-term investments, together with amounts available under our credit facility, are sufficient to fund each of our current product candidates through development. However, we expect to need to raise additional funds for the commercialization of these product candidates. Pending use of the proceeds as described above, we intend to invest the net proceeds of this offering in short-term, interest-bearing, investment-grade securities or certificates of deposit.

We have not determined the amounts we plan to spend in any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds to us from this offering, and investors will be relying on the judgment of our management regarding the application of the proceeds from this offering. We reserve the right to change the use of these proceeds as a result of certain contingencies such as competitive developments, the results of our commercialization efforts, acquisition and investment opportunities and other factors.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We intend to retain future earnings, if any, to finance the operation and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. In addition, unless waived, the terms of our credit facility with Square 1 Bank limit our ability to pay cash dividends. Any future determination related to dividend policy will be made at the discretion of our board of directors after considering our financial condition, results of operations, capital requirements, business prospects and other factors the board of directors deems relevant, and subject to the restrictions contained in our current or future financing instruments.

Table of Contents

CAPITALIZATION

The following table sets forth our cash, cash equivalents and short-term investments and our capitalization as of March 31, 2013 as follows:

- on an actual basis;
- on a pro forma basis to reflect (1) the automatic conversion of all outstanding shares of our convertible preferred stock into 12,596,115 shares of common stock immediately prior to the closing of this offering, and (2) the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock immediately prior to the closing of this offering in satisfaction of accumulated and unpaid dividends, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed initial public offering price of $6.00 per share; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of 5,500,000 shares of common stock in this offering at an assumed initial public offering price of $6.00 per share, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this information in conjunction with our financial statements and the related notes appearing at the end of this prospectus and the section in this prospectus entitled Management s Discussion and Analysis of Financial Condition and Results of Operations and other financial information contained in this prospectus.

	As of March 31, 2013		
	Actual	Pro Forma	Pro Forma As Adjusted[1]
	(in thousands, except share and per share data)		
Cash, cash equivalents and short-term investments	$ 25,652	$ 25,652	$ 53,841
Liability for early exercise of stock options	$ 213	$ 213	$ 213
Loan payable	4,929	4,929	4,929
Convertible preferred stock (series A, A-1, B and C), par value $0.001 per share; 20,941,667 shares authorized, 20,934,778 shares issued and outstanding, actual; no shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	41,952		
Preferred stock, par value $0.001 per share; no shares authorized, issued and outstanding, actual; 10,000,000 shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted			
Common stock, par value $0.001 per share; 25,041,667 shares authorized, 893,974 shares issued and outstanding, actual; 100,000,000 shares authorized, pro forma and pro forma as adjusted; 14,109,766 shares issued and outstanding, pro forma; 19,609,766 shares issued and outstanding, pro forma as adjusted	1	14	20
Additional paid-in capital	795	42,734	70,917
Deficit accumulated during the development stage	(25,503)	(25,503)	(25,503)
Total stockholders equity (deficit)	(24,707)	17,245	45,434
Total capitalization	$ 22,387	$ 22,387	$ 50,576

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $6.00 per share would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, total stockholders equity and total capitalization by approximately $5.1 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated

Table of Contents

underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase (decrease) of 1.0 million shares in the number of shares offered by us at the assumed initial public offering price per share would increase (decrease) the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, total stockholders equity and total capitalization by approximately $5.6 million.

The table above does not reflect:

- 508,981 shares of common stock issuable upon exercise of stock options outstanding as of March 31, 2013, at a weighted-average exercise price of $0.30 per share;
- 1,021,578 shares of restricted stock that are subject to vesting restrictions as of March 31, 2013 and are not considered outstanding for accounting purposes;
- 42,353 shares of common stock reserved for future issuance under our 2010 equity incentive plan as of March 31, 2013, all of which we have subsequently granted or expect to grant on or prior to the pricing date;
- 321,144 shares of common stock that we expect to grant under our 2013 incentive award plan on the pricing date; and
- 641,551 shares of common stock reserved for issuance under our new 2013 incentive award plan, after taking into account the awards described in the immediately preceding bullet.

Accumulated and Unpaid Dividends

Pursuant to the terms of our series A, B and C convertible preferred stock, we will, immediately prior to the closing of this offering, issue additional shares of common stock to the holders of such series of our convertible preferred stock in satisfaction of accumulated and unpaid dividends. The dividends on all such shares currently accumulate at the rate of 8% per annum, compounded annually, of the original purchase price of such shares. At March 31, 2013, the aggregate accumulated and unpaid dividends on the series A, B and C convertible preferred stock amounted to approximately $3.7 million. The common stock issued in satisfaction of our accumulated and unpaid dividends will be valued at the public offering price per share in this offering, so you can estimate the number of shares of common stock that will be issued by dividing the accumulated and unpaid dividend amount by the initial public offering price. For example, at March 31, 2013, the total number of shares of common stock issuable upon satisfaction of the accumulated and unpaid dividends, based on the assumed initial public offering price of $6.00, was 619,677 shares. As of June 21, 2013, the aggregate accumulated and unpaid dividends on the series A, B and C convertible preferred stock amounted to approximately $4,446,332, and we incur an additional approximately $8,876 in accumulated and unpaid dividends each day. To estimate the number of shares that will be issued at the closing of this offering, you must divide the aggregate accumulated and unpaid dividend amount as of the closing date by the initial public offering price. The aggregate accumulated and unpaid dividend amount can be determined by multiplying $8,876 by the number of days in the period beginning after June 21 and ending on the date prior to the closing date and then adding that to $4,446,332.

Table of Contents

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

As of March 31, 2013, we had a historical net tangible book value (deficit) of $(25.9) million, or $(28.99) per share of common stock. Our historical net tangible book value per share represents total tangible assets less total liabilities and convertible preferred stock divided by the number of shares of common stock outstanding at March 31, 2013.

Our pro forma net tangible book value as of March 31, 2013 was $16.0 million, or $1.14 per share of our common stock, based on 14,109,766 shares of common stock outstanding after giving effect to (1) the automatic conversion of all outstanding shares of our convertible preferred stock into 12,596,115 shares of common stock immediately prior to the closing of this offering and (2) the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock immediately prior to the closing of this offering in satisfaction of accumulated and unpaid dividends, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at the assumed initial public offering price of $6.00 per share. Pro forma net tangible book value per share is determined by dividing our total tangible assets less total liabilities by the pro forma number of shares of common stock outstanding at March 31, 2013 before giving effect to our sale of shares of common stock in this offering.

After giving further effect to the sale of 5,500,000 shares of common stock that we are offering at an assumed initial public offering price of $6.00 per share, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2013 would have been approximately $45.4 million, or approximately $2.32 per share. This amount represents an immediate increase in pro forma net tangible book value of $1.18 per share to our existing stockholders and an immediate dilution in pro forma net tangible book value of approximately $3.68 per share to new investors purchasing shares of common stock in this offering.

Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution:

Assumed initial public offering price per share		$ 6.00
Historical net tangible book (deficit) value per share as of March 31, 2013	$ (28.99)	
Increase per share attributable to the conversion of our convertible preferred stock	30.13	
Pro forma net tangible book value per share as of March 31, 2013	1.14	
Increase in pro forma net tangible book value per share attributable to this offering	1.18	
Pro forma as adjusted net tangible book value per share after this offering		2.32
Dilution per share to new investors		$ 3.68

Each $1.00 increase (decrease) in the assumed initial public offering price of $6.00 per share would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by approximately $0.27, and dilution in pro forma net tangible book value per share to new investors by approximately $0.73, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and the estimated offering expenses payable by us. Each increase of 1.0 million shares in the number of shares offered by us would increase our pro forma as adjusted net tangible book value per share after this offering by approximately $0.16 per share and decrease the dilution to investors participating in this offering by approximately $0.16 per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and the

Table of Contents

estimated offering expenses payable by us. Each decrease of 1.0 million shares in the number of shares offered by us would decrease our pro forma as adjusted net tangible book value per share after this offering by approximately $0.18 per share and increase the dilution to investors participating in this offering by approximately $0.18 per share, assuming that the assumed initial public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares of our common stock in full in this offering, the pro forma as adjusted net tangible book value after the offering would be $2.45 per share, the increase in pro forma net tangible book value per share to existing stockholders would be $1.31 per share and the dilution per share to new investors would be $3.55 per share, in each case assuming an initial public offering price of $6.00 per share.

The following table summarizes on the pro forma as adjusted basis described above, as of March 31, 2013, the differences between the number of shares purchased from us, the total consideration paid to us in cash and the average price per share that existing stockholders and new investors in this offering paid. The calculation below is based on the assumed initial public offering price of $6.00 per share, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	14,109,766	72.0%	$ 43,243,183	56.7%	$ 3.06
New investors	5,500,000	28.0	33,000,000	43.3	$ 6.00
Total	19,609,766	100%	$ 76,243,183	100%	

The foregoing tables and calculations exclude:

- 508,981 shares of common stock issuable upon exercise of stock options outstanding as of March 31, 2013, at a weighted-average exercise price of $0.30 per share;
- 1,021,578 shares of restricted stock that are subject to vesting restrictions as of March 31, 2013 and are not considered outstanding for accounting purposes;
- 42,353 shares of common stock reserved as of March 31, 2013 for future issuance under our 2010 equity incentive plan, all of which we have subsequently granted or expect to grant on or prior to the pricing date;
- 321,144 shares of common stock that we expect to grant under our 2013 incentive award plan on the pricing date; and
- 641,551 shares of common stock reserved for issuance under our new 2013 incentive award plan, after taking into account the awards described in the immediately preceding bullet.

To the extent any of these outstanding options is exercised, there will be further dilution to new investors. If all of such outstanding options had been exercised as of March 31, 2013, the pro forma as adjusted net tangible book value per share after this offering would be $2.17, and total dilution per share to new investors would be $3.83.

If the underwriters exercise their option to purchase additional shares of our common stock in full:

- the percentage of shares of common stock held by existing stockholders will decrease to approximately 69.0% of the total number of shares of our common stock outstanding after this offering; and
- the number of shares held by new investors will increase to 6,325,000, or approximately 31.0% of the total number of shares of our common stock outstanding after this offering.

Certain of our executive officers and directors or their affiliates have indicated an interest in purchasing an aggregate of approximately $7.75 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or may determine not to purchase any shares in this offering. It is also possible that these stockholders could indicate an interest in purchasing more shares of our common stock. In addition, the underwriters could determine to sell fewer shares to any of these stockholders than the stockholders indicate an interest in purchasing or could determine not to sell any shares to these stockholders. The foregoing discussion

and tables do not reflect any potential purchases by these stockholders or their affiliated entities.

Table of Contents

SELECTED FINANCIAL DATA

You should read the following selected financial data in conjunction with our financial statements and the related notes thereto appearing elsewhere in this prospectus and in the section of this prospectus entitled Management s Discussion and Analysis of Financial Condition and Results of Operations.

We have derived the statements of operations data for the years ended December 31, 2011 and 2012 and the balance sheet data as of December 31, 2011 and 2012 from our audited financial statements appearing elsewhere in this prospectus. The statement of operations data for the three months ended March 31, 2012 and 2013 and for the period from our inception (December 1, 2010) to March 31, 2013 and the balance sheet data as of March 31, 2013 have been derived from our unaudited financial statements appearing elsewhere in this prospectus. This unaudited interim financial information has been prepared on the same basis as our audited financial statements and, in our opinion, reflects all adjustments, consisting only of normal and recurring adjustments, that we consider necessary for a fair presentation of our financial position as of March 31, 2013 and operating results for the periods ended March 31, 2012 and 2013. The historical results are not necessarily indicative of the results to be expected for any future periods and the results from the three months ended March 31, 2013 should not be considered indicative of results expected for the fiscal year 2013.

	Year Ended December 31,		Three Months Ended March 31,		Cumulative period from Inception (December 1, 2010) to March 31, 2013 (unaudited)
	2011	2012	2012 (unaudited)	2013 (unaudited)	
	(in thousands, except share and per share data)				
Statement of Operations Data:					
Revenue	$	$	$	$	$
Operating expenses:					
Research and development	2,196	7,291	1,751	2,114	11,601
General and administrative	1,274	2,987	498	1,226	5,796
In-process research and development		1,500			8,025
Total operating expenses	3,470	11,778	2,249	3,340	25,422
Loss from operations	(3,470)	(11,778)	(2,249)	(3,340)	(25,422)
Other income (expense):					
Interest income	6	21	4	3	30
Interest expense				(24)	(24)
Other income		121		68	189
Total other income (expense)	6	142	4	47	195
Net loss and comprehensive loss	$ (3,464)	$ (11,636)	$ (2,245)	$ (3,293)	$ (25,227)
Modification of series A convertible preferred stock	(276)				
Unaccreted dividends on convertible preferred stock	(902)	(2,035)	(444)	(773)	
Net loss attributable to common stockholders	$ (4,642)	$ (13,671)	$ (2,689)	$ (4,066)	
Net loss per share attributable to common stockholders, basic and diluted[(1)]	$ (15.43)	$ (34.53)	$ (8.94)	$ (4.73)	
Weighted average shares outstanding, basic and diluted[(1)]	300,841	395,918	300,841	860,350	

Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[2]	$ (1.01)	$ (0.24)
Weighted average shares used in computing pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[2]	11,465,054	13,936,333

Table of Contents

(1) See Note 17 to our financial statements included elsewhere in this prospectus for further details on the calculation of basic and diluted net loss per share attributable to common stockholders.

(2) See Note 17 to our financial statements included elsewhere in this prospectus for further details on the calculation of pro forma basic and diluted net loss per share attributable to common stockholders.

	As of December 31,		As of March 31, 2013 (unaudited)
	2011	2012	
		(in thousands)	
Balance Sheet Data:			
Cash, cash equivalents and short-term investments	$ 12,384	$ 20,355	$ 25,652
Working capital[1]	11,720	17,546	22,086
Total assets	12,573	21,222	27,109
Total long-term debt, net of discount			4,929
Total convertible preferred stock[2]	22,155	39,197	41,952
Total stockholders deficit	(10,271)	(21,555)	(24,707)

(1) We define working capital as current assets less current liabilities.

(2) Consists of our series A, A-1, B and C convertible preferred stock. See Note 10 to our financial statements included elsewhere in this prospectus.

Table of Contents

MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with our financial statements and the related notes and other financial information included elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. You should review the Risk Factors section of this prospectus for a discussion of important factors that could cause our actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a development-stage biopharmaceutical company focused on the licensing, development and commercialization of innovative prescription medications for pets, or pets therapeutics. We believe that we can leverage the investment in the human biopharmaceutical industry to bring therapeutics to pets in a capital and time efficient manner. Our strategy is to in-license proprietary compounds from human biopharmaceutical companies and to develop these product candidates into regulatory-approved therapeutics specifically for use in pets. We believe the development and commercialization of these therapeutics will permit veterinarians and pet owners to manage pets medical needs safely and effectively, resulting in longer and improved quality of life for pets.

In order to successfully execute our plan, we have assembled an experienced management team consisting of veterinarians, physicians, scientists and other professionals that apply the core principles of drug development to the medical needs of pets. The members of our senior management team combined have over 100 years of experience in the animal health and human biopharmaceutical industries, as well as a strong track record of successfully developing and commercializing therapeutics for pets. Collectively, our Chief Scientific Officer and our Head of Drug Evaluation and Development have been actively involved in the development of 20 and 22, respectively animal health products that have obtained regulatory approval. Our Chief Commercial Officer has been responsible for guiding the launch of 22 animal health products, including the highest selling product for the treatment of pain in dogs, Rimadyl.

Since our founding in 2010, we have licensed three compounds, AT-001, AT-002 and AT-003, that we are developing into six products for use in pets in the United States and Europe. We are conducting clinical studies designed to confirm the safety and effectiveness of selected dose regimens, referred to as dose confirmation studies, for AT-001 for the treatment of pain and inflammation associated with osteoarthritis in dogs and for AT-002 for the treatment of inappetence in both cats and dogs. Once these studies are complete, we intend to start clinical studies intended to provide substantial evidence required for regulatory approval, referred to as pivotal effectiveness studies, and assuming we enroll a sufficient number of client-owned pets in a timely manner, we expect to have results from these pivotal studies in late-2013 and 2014. We intend to initiate dose confirmation studies for AT-003 for the treatment of post-operative pain in both cats and dogs in mid-2013. We aim to submit new animal drug applications, or NADAs, for U.S. approval for the majority of these potential products in 2015 and 2016 and to make similar regulatory filings for European approval in 2016 and 2017. We plan to commercialize our products in the United States through a direct sales force, complemented by distributor relationships, and in Europe and rest of world through commercial partners.

We have an active in-licensing effort focused on identifying human therapeutics for development and commercialization as pet therapeutics. We seek to identify compounds that have demonstrated safety and effectiveness in at least two species and are in, or have completed, Phase I or Phase II clinical trials in humans, with well-developed active pharmaceutical ingredient, or API, process chemistry and a well-defined manufacturing process. Once identified, we seek to obtain exclusive, worldwide rights to these compounds in the animal health field and believe that we can bring the products to market for pets quickly and efficiently. We believe that our product candidates, if approved, will enable veterinarians to deliver a higher level of medical care to pets while providing an important revenue stream to the veterinarian s practice.

Table of Contents

We have funded our operations primarily through private placements of convertible preferred stock, debt, our manufacturing agreement with RaQualia Pharma, Inc., or RaQualia, and research grants. From our inception on December 1, 2010 through March 31, 2013, we have received an aggregate of $49.0 million in such funding, which includes $43.1 million from the sales of convertible preferred stock, $5.0 million from our credit facility, $0.8 million pursuant to our manufacturing agreement with RaQualia and $0.1 million in grants from the Kansas Bioscience Authority, or KBA.

We are a development stage company with no products approved for marketing and sale and we have not generated any revenue. We have incurred significant net losses since our inception. We incurred net losses of $3.5 million and $11.6 million for the years ended December 31, 2011 and 2012, respectively, and $3.3 million during the three months ended March 31, 2013. These losses have resulted principally from costs incurred in connection with in-licensing our product candidates, research and development activities and general and administrative costs associated with our operations. As of March 31, 2013, we had a deficit accumulated during development stage of $25.5 million and cash, cash equivalents and short-term investments of $25.7 million.

We expect to continue to incur operating losses for the next several years as we work to develop and commercialize our product candidates. As a result, we will seek to fund our operations through public or private equity offerings, debt financings, corporate collaborations and licensing arrangements. We cannot assure you that such funds will be available on terms favorable to us, if at all. Arrangements with collaborators or others may require us to relinquish rights to certain of our technologies or product candidates. In addition, we may never successfully complete development of any of our product candidates, obtain adequate patent protection for our technology, obtain necessary regulatory approval for our product candidates or achieve commercial viability for any approved product candidates. If we are not able to raise additional capital on terms acceptable to us, or at all, as and when needed, we may be required to curtail our operations, and we may be unable to continue as a going concern. We believe that our cash and cash equivalent balances as of March 31, 2013 are sufficient to fund operations for at least the next twelve months.

Financial Overview

Revenue

We do not have any products approved for sale, have not generated any revenues from product sales since our inception and do not expect to generate any revenue from the sale of products in the near future. If our development efforts result in clinical success and regulatory approval or collaboration agreements with third parties for any of our product candidates, we may generate revenues from those product candidates.

Operating Expenses

The majority of our operating expenses to date have been for the licensing of and the research and development activities related to AT-001 and AT-002.

Research and Development Expense

Research and development costs, which consist primarily of costs associated with our product development efforts, including target animal studies, are expensed as incurred. Research and development expense consists primarily of wages, stock-based compensation and employee benefits for all employees engaged in scientific research and development functions, and other operational costs related to our research and development activities, including facility-related expenses, external costs of outside contractors engaged to conduct target animal studies, contract manufacturers and API chemistry service providers, license payments made under our licensing agreements, regulatory, professional and consulting fees, travel costs and allocated corporate costs.

Table of Contents

We have been developing AT-001 and AT-002 in parallel and typically use our employee and infrastructure resources across multiple development programs. We track outsourced development costs by development compound but do not allocate personnel or other internal costs related to development to specific programs or development compounds. These expenses are included in personnel costs and other internal costs, respectively.

General and Administrative Expense

General and administrative expense consists primarily of personnel costs, including salaries, related benefits and stock-based compensation for employees in administration, finance and business development. General and administrative expenses also includes allocated rent and other facilities costs; professional and consulting fees for general business purposes and for accounting and tax services, business development activities, and general legal services; and travel and other costs.

In-Process Research and Development Expense

In-process research and development expense consists of costs associated with acquired in-licensed technology, including upfront and milestone payments. As this technology has not reached technological feasibility in animal health indications and has no alternative future use in the field of animal health, it is expensed upon acquisition.

Other Income (Expense)

Interest Income

Interest income consists of interest earned on our cash and cash equivalents.

Interest Expense

We have not historically incurred interest expense. However, in March 2013, we borrowed $5.0 million under our credit facility and we expect to incur interest expense associated with those borrowings going forward. A more detailed description of our credit facility is available under the caption Liquidity and Capital Resources.

Other Income

Other income consists primarily of amounts received under a research and development voucher program grant agreement with the KBA, which was executed in March 2012. We are eligible to receive up to $1.3 million over an estimated two year period, in the form of a quarterly reimbursement of 33% of costs incurred during that period for pre-formulation, formulation, manufacture and pivotal studies associated with the AT-001 and AT-002 programs, to the extent that such costs are incurred with specifically-named Kansas companies. From inception through March 31, 2013, we have received $0.1 million under this agreement.

In addition to the KBA grant reimbursements, we also recognized a small amount of other income from the sublease of our New York office.

Income Taxes

As of December 31, 2012, we had federal and state net operating loss carryforwards of $1.1 million and $1.0 million, respectively, and federal and state research and development tax credit carryforwards of $42,000 and $45,000, respectively. We have not recorded any U.S. federal or state income tax benefits for the losses or research and development tax credits, as they have been offset in full by valuation allowances.

Table of Contents

Critical Accounting Policies and Significant Judgments and Estimates

Our management s discussion and analysis of financial condition and results of operations is based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of our financial statements and related disclosures requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, and revenues, costs and expenses and related disclosures during the reporting periods. On an ongoing basis, we evaluate our estimates and judgments, including those described below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 to our financial statements appearing elsewhere in this prospectus, we believe that the estimates and assumptions involved in the following accounting policies may have the greatest potential impact on our financial statements.

JOBS Act

On April 5, 2012, the Jumpstart Our Business Startups Act, or the JOBS Act, was signed into law. The JOBS Act contains provisions that, among other things, reduce certain reporting requirements for an emerging growth company. As an emerging growth company we are electing not to take advantage of the extended transition period afforded by the JOBS Act for the implementation of new or revised accounting standards, and as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. Section 107 of the JOBS Act provides that our decision not to take advantage of the extended transition period is irrevocable.

In addition, we are in the process of evaluating the benefits of relying on the other exemptions and reduced reporting requirements provided by the JOBS Act. Subject to certain conditions set forth in the JOBS Act, if as an emerging growth company we choose to rely on such exemptions, we may not be required to, among other things, (i) provide an auditor s attestation report on our system of internal controls over financial reporting pursuant to Section 404, and (ii) comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor s report providing additional information about the audit and the financial statements (auditor discussion and analysis). These exemptions will apply for a period of five years following the completion of our initial public offering or until we no longer meet the requirements of being an emerging growth company, whichever is earlier.

Research and Development

As part of the process of preparing our financial statements, we are required to estimate accrued research and development expenses. Examples of estimated accrued expenses include fees paid to CROs in connection with target animal studies, to investigative sites in connection with target animal studies, to contract manufacturers in connection with the production of API and formulated drug, and to other parties for outsourced chemistry services.

We review new and open contracts and communicate with applicable internal and vendor personnel to identify services that have been performed on our behalf and estimate the level of service performed and the associated costs incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost for accrued expenses. The majority of our service providers invoice us monthly in arrears for services performed or as milestones are achieved in relation to our contract manufacturers. We make estimates of our accrued expenses as of each balance sheet date.

We base our accrued expenses related to target animal studies on our estimates of the services received and efforts expended pursuant to contracts with CROs that conduct and manage target animal studies on our behalf. The

Table of Contents

financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors such as the successful enrollment of animals and the completion of development milestones. We estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the related expense accrual accordingly on a prospective basis. If we do not identify costs that have been incurred or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates. To date, we have not made any material adjustments to our estimates of accrued research and development expenses or the level of services performed in any reporting period presented.

Stock-Based Compensation

The methodology we have used to date in measuring stock-based compensation expense is described below. Following the completion of this offering, the value of stock-based awards will be determined based on the quoted market price of our common stock.

We measure stock-based awards granted to employees and directors at fair value on the date of grant and recognize the corresponding compensation expense of those awards, net of estimated forfeitures, over the requisite service period, which is generally the vesting period of the respective award. Stock-based compensation related to restricted stock awards is based on the market value of our common stock on the date of grant and is recognized as expense, net of forfeitures, ratably over the requisite service period. Generally, we issue stock-based awards with only service-based vesting conditions and record compensation expense for these awards using the straight-line method. Our intention is to grant stock-based awards with exercise prices equivalent to the fair value of our common share as of the date of grant.

We account for all stock-based awards issued to non-employees based on the fair value of the award on each measurement date. Stock-based awards granted to non-employees are subject to revaluation at each reporting date over their vesting terms. As a result, the charge to operations for non-employee awards with vesting conditions is affected each reporting period by changes in the fair value of our common stock.

The fair value of each stock-based award is estimated using the Black-Scholes option-pricing model. We have historically been a private company and lack company-specific historical and implied volatility information. Therefore, we estimate our expected volatility based on the historical volatility of our publicly-traded peer companies and expect to continue to do so until such time as we have adequate historical data regarding the volatility of our traded common stock price. The expected term of our awards has been determined utilizing the simplified method as we do not have sufficient historical experience for option grants overall, rendering existing historical experience irrelevant to expectations for current grants. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that we have never paid cash dividends and do not expect to pay any cash dividends in the foreseeable future. The assumptions we used to determine the fair value of stock-based compensation granted in each period were as follows, presented on a weighted average basis:

	Year Ended December 31,		Three Months Ended March 31,
	2011	2012	2013
Risk-free interest rate	1.94%	0.90%	1.08%
Expected term (in years)	5.8	6.0	6.0
Expected volatility	67%	67%	67%
Expected dividend yield	0%	0%	0%

We did not grant stock-based awards during the three months ended March 31, 2012.

Table of Contents

These assumptions represent our best estimates, but the estimates involve inherent uncertainties and the application of our judgment. As a result, if factors change and we use significantly different assumptions or estimates, our stock-based compensation expense could be materially different. We recognize compensation expense for only the portion of awards that are expected to vest. In developing a forfeiture rate estimate, we have considered our historical experience to estimate pre-vesting forfeitures. If our actual forfeiture rate is materially different from the estimate, our stock-based compensation expense could be different from what we have recorded in the current period.

Valuations of Common Stock

The fair value of our common stock underlying stock-based awards has historically been determined by our board of directors, with assistance from management, based upon information available at the time of grant. The intention has been that all awards granted are exercisable at a price per share not less than the per share fair value of our common stock underlying those awards on the date of grant. Given the absence of a public trading market for our common stock, and in accordance with the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, management and our board of directors have exercised reasonable judgment and considered numerous objective and subjective factors to determine the best estimate of the fair value of our common stock at each grant date. These factors included:

- the progress of our research and development programs, including the status of clinical studies for our products;
- achievement of enterprise milestones;
- our financial condition, including cash on hand;
- our need for future financing to fund the commercialization of our product candidates;
- the composition of, and changes to, our management team and board of directors;
- the rights and preferences of our convertible preferred stock relative to our common stock;
- the lack of marketability of our common stock;
- third-party valuations of our common stock;
- an analysis of mergers and acquisitions, initial public offerings and the market performance of similar companies in the animal health and biotechnology industry sectors;
- the likelihood of achieving a discrete liquidity event, such as a sale or merger, or initial public offering, given prevailing market conditions;
- the expected valuation in a potential sale or merger, or initial public offering; and
- external market and economic conditions affecting the pharmaceutical, animal health and biotechnology industry sectors.

As identified above, our board of directors considers third-party valuations as one of their factors in determining the fair value of our common stock for purposes of granting options. During the period from January 1, 2012 to April 17, 2013, our board of directors obtained third-party valuations in both May and December 2012, as well as March 2013. The methodologies used in these valuations are described below.

The third-party valuation as of May 31, 2012, or the May 2012 valuation, used the precedent transaction approach, using an option-pricing method, or OPM, in assigning value to our common stock. In February 2012, we completed a $7.7 million offering of series B convertible preferred stock. Given the proximity of this financing to the valuation date, the precedent transaction approach was deemed an appropriate methodology to use in estimating the equity value from which to derive the value of our common stock. Using the OPM under the precedent transaction approach, the rights of the preferred and common stockholders are modeled in a series of call options with exercise prices based on the value thresholds at which the allocation among the various holders of a company s securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the liquidation preference at the time of a liquidity event, such as a strategic sale, merger or initial public offering, assuming the enterprise has funds available to make a liquidation preference meaningful and collectible by the holders of preferred stock. Thus, common stock is considered a call option with a claim on the enterprise at an exercise price equal to the remaining value immediately after the preferred stock is liquidated. The OPM uses the Black-Scholes option-pricing model to price the call options. This model defines each

Table of Contents

class of stock s fair values as functions of the current fair value of a company and uses assumptions such as the anticipated timing of a potential liquidity event and the estimated volatility of the equity securities. The model is then used to calculate the implied equity value that matches fair value of our series B convertible preferred stock, which is equal to the price paid per share in the closing of the financing. The total equity value allocated to the common stock is then divided by the number of shares outstanding at each valuation date to determine the fair value per share. In addition, since our stock is not publicly traded, a discount for lack of marketability is then applied to determine the fair value of our common stock.

For purposes of the May 2012 valuation, we allocated equity value using the OPM assuming 2.6 years to liquidity. The anticipated timing and probability of a liquidity event was based on then-current plans and estimates of our board of directors and management regarding a liquidity event, which is considered a private sale, merger or acquisition. We assumed volatility of 56%, based on historical trading volatility for our peer companies and a risk-free rate of 0.31% based on the then-average yield of U.S. Treasury Notes commensurate with our estimated time to liquidity under the liquidity scenario. The aggregate value of the common stock derived from the total equity value in the OPM was then divided by the number of shares of common stock outstanding at the valuation date to arrive at the common stock value per share. In addition, we applied a discount for the lack of marketability of 15% to reflect the increased risk arising from the inability to readily sell the shares.

The valuation approach used in the third-party valuation of our common stock as of December 31, 2012, or the December 2012 valuation, was substantially the same approach as that used in the May 2012 valuation. For the December 2012 valuation, the OPM was prepared assuming one year to liquidity, consistent with then-current plans and estimates of our board of directors. The valuation technique used to estimate equity value in order to derive the value of the common stock under the OPM was the precedent transaction approach, as described above. In December 2012, we completed a $9.3 million series C convertible preferred stock financing. Under the precedent transaction approach, we used the closing price of the series C financing to estimate the implied price of our common stock. In performing our December 2012 valuation, we used volatility of 59.7% based on historical trading volatility for our peer companies and a risk free rate of 0.16%, based on the then-average yield of U.S. Treasury Notes commensurate with our estimated time to liquidity. In addition, we applied a discount for the lack of marketability of 5% to reflect the risk arising from the inability to readily sell the shares.

The third-party valuation of our common stock as of March 31, 2013, or the March 2013 valuation, was prepared considering two types of future event scenarios: an initial public offering in the near term, and a longer-term liquidity event, consistent with then-current plans and estimates of our board of directors. The March 2013 valuation was prepared using a hybrid of a discounted cash flow method, using the income approach, for the initial public offering scenario, and the precedent transaction approach, using an OPM, for the long-term liquidity event scenario.

The discounted cash flow method, used under the income approach, involves applying appropriate discount rates to estimated cash flows that were based on forecasts of revenue, costs and capital requirements. Our assumptions underlying the estimates were consistent with the plans and estimates that we use to manage the business. The risks associated with achievement of our forecasts were assessed in selecting the appropriate discount rates and selecting probability weights for forecasted cash flows. To derive the value of the common stock under the discounted cash flow method, the proceeds to the common stockholders were calculated based on the preferences and priorities of the preferred and common stock. In our March 2013 valuation, we applied a risk-adjusted discount rate of 20.5%. Consistent with the precedent transaction approach described above, we applied a discount for lack of marketability of 8% to reflect the increased risk arising from the inability to readily sell the shares.

The revised OPM, which was used to value the long-term liquidity scenario, was prepared assuming 3.75 years to liquidity, consistent with then-current plans and estimates of our board of directors, and including the contemplation of our potential initial public offering. The increased timeframe of a long-term liquidity event from 2.6 years (in the May 2012 valuation) to 3.75 years was because our board of directors believed the near-term liquidity event would be an initial public offering and the longer-term liquidity event should, with the recent additions to our management team, contemplate further development of our product candidates prior to a private sale, merger or acquisition. The

Table of Contents

valuation technique used to estimate equity value in order to derive the value of the common stock under the OPM was the precedent transaction approach, as described above. In January and February 2013, we completed subsequent closings of our series C convertible preferred stock financing for aggregate proceeds totaling $2.8 million. Under the precedent transaction approach, we used the closing price of the series C financing to estimate the implied price of our common stock. In performing our March 2013 valuation, we used volatility of 55.9% based on historical trading volatility for our peer companies and a risk-free rate of 0.57% based on the then-average yield of U.S. Treasury Notes commensurate with our estimated time to liquidity. In addition, we applied a discount for the lack of marketability of 8% to reflect the increased risk arising from the inability to readily sell the shares.

Management and our board of directors then determined that, for purposes of the March 2013 valuation, the total probability for the initial public offering scenario was 60% and for the longer-term liquidity event was 40%. The increased probability weighting in our initial public offering scenario also takes into consideration progression by us in our initial public offering process during this period. Accordingly, the common stock fair value was calculated as the weighted-average of these two future event scenarios using these percentages.

Grants of Stock-based Awards

The following table summarizes by grant date the number of shares of our common stock underlying stock-based awards granted between January 1, 2012 and April 17, 2013, the per share exercise price of the awards, the fair value of common stock underlying the stock-based awards, and the per share estimated fair value of the grants:

	Number of Restricted Shares Granted	Number of Shares Subject to Options Granted	Per Share Exercise Price of Options	Revised Fair Value of Common Stock on Date of Option Grant (1)	Revised Per Share Weighted-Average Estimated Fair Value of Options (2)
8/2/12		240,672	$ 0.40	$ 0.40	$ 0.23
9/25/12	58,013	260,862	$ 0.40	$ 0.40	$ 0.23
10/4/12		15,042	$ 0.40	$ 1.06	$ 0.83
10/23/12		58,662	$ 0.40	$ 1.06	$ 0.83
12/22/12		13,537	$ 0.40	$ 2.59	$ 2.28
1/25/2013	43,404	168,035	$ 0.45	$ 2.59	$ 2.26
1/30/2013		21,058	$ 0.45	$ 2.59	$ 2.26
2/28/2013	33,092		N/A	$ 2.59	N/A
4/17/2013		41,615	$ 5.57	$ 5.57	$ 3.45

(1) The Revised Fair Value of Common Stock on Date of Grant represents the determination by our board of directors of the revised fair market value of our common stock on the date of grant, as determined by taking into account our most recently available valuation of common stock as well as additional factors which may have changed since the date of the most recent contemporaneous valuation through the date of grant, including the contemplation of this offering.

(2) The Revised Per Share Estimated Fair Value of Awards reflects the weighted average fair value of awards granted on each grant date as estimated at the date of grant using the Black-Scholes option-pricing model. This model estimates the fair value using as inputs the exercise price of the award and the revised fair value of common stock on the date of option grant and assumptions of the risk-free interest rate, expected term of the option, expected share price volatility of the underlying common stock and expected dividends on the underlying common stock.

As discussed in more detail below, our board of directors determined that the fair value of our common stock remained at $0.40 per share for each of the award grant dates in 2012, increased to $0.45 per share in January 2013 and remained unchanged for each of the award grants in the first quarter of 2013. These determinations were based on its consideration of the factors described below, as well as the third-party valuations it received during the course

51

Table of Contents

of the year. On February 28, 2013, our board of directors approved the pursuit of this initial public offering of our common stock. In preparing for our proposed initial public offering, we determined that a retrospective valuation of the fair value of our common stock as of October 4, 2012, December 22, 2012, January 25, 2013, January 30, 2013 and February 28, 2013 was appropriate due to acceleration of the timeframe to a potential liquidity event, our proposed initial public offering. In connection with that reexamination, we prepared a retrospective valuation of the fair value of our common stock for financial reporting purposes to assist our board of directors in re-evaluating the fair value of our common stock as of these dates.

The following discussion describes our board of directors analysis of the fair value of our common stock, including the reasons for the increases in the fair value of our common stock over this period following the retrospective reassessment of valuation and as compared to the assumed initial public offering price set forth on the cover page of this prospectus.

Stock-based Awards Granted on August 2, 2012 and September 25, 2012

On August 2, 2012 and September 25, 2012, our board of directors granted options to purchase an aggregate of 559,547 shares of our common stock with an exercise price of $0.40 per share. Prior to this grant, our board of directors had previously granted options in November 2011 at $0.43 per share. In establishing this exercise price for the August and September grants, our board of directors considered the impact of our series B convertible preferred stock financing in February 2012, the valuation of our common stock conducted as of May 31, 2012, input from management and the other objective and subjective factors considered by our board of directors as discussed above. In regards to the series B financing, the board of directors also considered that the liquidation preference afforded the holders of the series B convertible preferred stock and our other shares of convertible preferred stock decreased the value of the common stock. In regards to the May 2012 valuation, the board of directors noted that the volatility assumption used in the valuation model had shown a decrease in volatility for the peer group, which caused a decrease in the fair value of our common stock from earlier valuations to approximately $0.40 per share in May 2012. Since the May 2012 valuation, the board of directors noted that the company had continued to operate its business in the ordinary course, including conducting dose confirmation studies for AT-001 and AT-002, and that a long-term liquidity event, including a private sale, merger or acquisition, was the company s likely liquidity scenario. As a result, the board of directors determined that no increase in the fair value determination from the May 2012 valuation was appropriate at that time and that the fair value of our common stock was $0.40 per share on the dates of the August and September grants.

Stock-based Awards Granted on October 4, 2012 and October 23, 2012

On October 4, 2012 and October 23, 2012, our board of directors granted options to purchase an aggregate of 73,704 shares of our common stock with an exercise price of $0.40 per share. In establishing this exercise price, our board of directors again considered input from management, the impact of the hiring of a new chief executive officer and chief financial officer in late September 2012, management s current plans, the status of regulatory developments and in-licensing efforts and the results of the May 2012 valuation. The board of directors considered whether changes in the business or other circumstances had impacted the analysis and assumptions associated with the May 2012 third-party valuation, as discussed above, and the board of directors September 2012 fair value determination. In particular, the board of directors noted that we had continued to operate our business in the ordinary course, including continuing to conduct dose confirmation studies for AT-001 and AT-002, and a long-term liquidity event, including a private sale, merger or acquisition, was still our only likely liquidity scenario. As a result, the board of directors determined that the fair value of our common stock remained unchanged and was $0.40 per share on the dates of the October grants.

Stock-based Awards Granted on December 22, 2012

On December 22, 2012, our board of directors granted options to purchase an aggregate 13,537 shares of our common stock with an exercise price of $0.40 per share. In establishing this exercise price, our board of directors

Table of Contents

again considered input from management, the impact of the sale of $9.3 million of series C preferred stock, the execution of the license agreement with Pacira, and certain other objective and subjective factors considered by our board of directors as discussed above. The board of directors considered whether changes in the business or other circumstances had impacted the analysis and assumptions associated with its May 31, 2012 third-party valuation and October 23, 2012 fair value determination. With regard to the series C financing, the board determined that the liquidation preference associated with the financing resulted in a decreased value of our common stock. However, the board of directors also determined that this decrease was offset by the impact of the Pacira license agreement, though given the recent timing of the Pacira license agreement and the early stage of development for the licensed compounds, the impact of this license agreement was insufficient at this time to result in an increase in the fair value of our common stock. The board of directors also noted that since October 23, 2012, we had continued to operate our business in the ordinary course, including continuing to conduct dose confirmation studies of AT-001 and AT-002, and that a long-term liquidity event, including a private sale, merger or acquisition, was still our only likely liquidity scenario. As a result, the board of directors determined that the fair value of our common stock remained unchanged and was $0.40 per share on the date of this grant.

Stock-based Awards Granted on January 25, 2013, January 30, 2013 and February 28, 2013

During January and February 2013, our board of directors granted stock-based awards for an aggregate of 265,589 shares of our common stock, including stock options with an exercise price of $0.45 per share. In establishing this exercise price, our board of directors again considered input from management, the impact of the follow-on offerings of our series C convertible preferred stock completed in January and February 2013, the valuation of our common stock conducted as of December 31, 2012 and our continued operation of our business in the ordinary course, including our ongoing dose confirmation studies for AT-001 and AT-002, as well as other objective and subjective factors considered by our board of directors as discussed above. The board of directors considered whether changes in our business, or other circumstances, had affected the analysis and assumptions associated with its December 2012 third-party valuation and its December 22, 2012 fair value determination. With regard to the series C convertible preferred stock financing, the board determined that the liquidation preference associated with the financing resulted in a marginal decrease in the value of our common stock. However, the board of directors also determined that this decrease was offset by the reduction in the assumed time to liquidity in the third-party valuation of our common stock, which decreased the discount applied related to the inability to readily sell the shares. As a result of the factors above, the board of directors determined that the fair value of our common stock had marginally increased to $0.45 per share at January 25, 2013 and remained unchanged through February 28, 2013.

Retrospective Valuation of Common Stock as of October 4, 2012, October 23, 2012 and December 22, 2012

On February 28, 2013, our board of directors approved the pursuit of an initial public offering of our common stock. As a result, in connection with the preparation of our financial statements for year ended December 31, 2012 and in preparing for our proposed initial public offering, we reexamined, for financial reporting purposes only, the fair value of our common stock during 2012. In connection with that reexamination, we engaged in a retrospective valuation of the fair value of our common stock for financial reporting purposes as of October 4, 2012 and December 22, 2012. We engaged a third-party valuation as one of the factors considered by our board of directors in reaching its December 2012 determination of our common stock fair value. We determined that a retrospective valuation of the fair value of our common stock as of October 4, 2012 and December 22, 2012 was appropriate due to acceleration of the timeframe to a potential liquidity event, our proposed initial public offering, which had not been contemplated in the determination of the original fair value on these dates. We did not believe that a retrospective valuation was appropriate at any date prior to October 4, 2012 based on the then-current progress of our product candidates, plans of management and our board of directors and our operational capacity, all of which are more fully described in the paragraphs below.

Retrospective Valuation of Common Stock as of October 4, 2012 and October 23, 2012. In determining the retrospective reassessed fair value for the grant dates in October 2012, our board of directors primarily focused on the impact of the now-proposed initial public offering on the initial valuations. At the time of the initial valuations,

Table of Contents

management and the board of directors continued to believe that a long-term liquidity event was the only likely liquidity scenario for the company. Retrospectively, our board of directors considered events and circumstances that had occurred since September 2012 and that were likely to have affected the likelihood of an initial public offering or other liquidity event. These events included our hiring of a new chief executive officer and chief financial officer, both of whom brought experience that was expected to help grow the company, and the filing of an amended registration statement for the initial public offering of Zoetis Inc., one of our competitors. As a result of these and other factors, our board of directors determined it should consider the increased likelihood of a potential initial public offering in reassessing the fair value. Due to the limited volume of awards granted in October 2012 and that the events that had occurred between the September 2012 and October 2012 grant dates indicated only a marginal increase in the likelihood of an initial public offering, our board of directors did not obtain a retrospective third-party valuation of our common stock as of the October 2012 grant dates. However, in determining the retrospectively reassessed fair value of our common stock at the October 2012 grant dates, the board of directors considered both the fair value of our common stock on September 25, 2012 and the retrospective valuation of our common stock performed as of December 31, 2012, which resulted in an increase in the value of our common stock due to the contemplation of an initial public offering scenario, among other factors, of $1.88 per share from September 25, 2012. The board of directors then considered the events and circumstances that occurred from September 25, 2012 through the October 2012 grant dates to determine the increase in the fair value of our common stock, if any, as a result of the increased likelihood of a potential initial public offering. While the events noted above indicated an increase in the likelihood of an initial public offering, the board of directors noted that the new chief executive officer and chief financial officer had been in their positions for no more than a month at that time, and that, while Zoetis had filed an amendment to its registration statement, its initial public offering appeared to be moving slowly and there were no indications as to when, if ever, the transaction would actually come to market. Based on these considerations, the board of directors determined that for the purpose of the retrospective October 2012 valuation, the probability for a potential initial public offering was 5%. As a result, our board of directors determined that, while the events that had occurred in October 2012 were indicative of an increase in the likelihood of an initial public offering, resulting in an increase in the fair value of our common stock, these events did not support a valuation of our common stock in October 2012 equal to the fair value of our common stock in December 2012, which assumed an initial public offering scenario probability of 25%, as discussed below. In making this determination, our board of directors considered that the public market environment and conditions were not as favorable in October 2012, as compared to December 2012, for an animal health company in a similar stage of development as ours, based on the comparatively limited progress of the Zoetis initial public offering, as well as the other factors noted above. Based on this analysis, our board of directors, determined that the retrospectively reassessed fair value of our common stock as of October 4, 2012 and October 23, 2012 should be $1.06 per share.

Retrospective Valuation of Common Stock as of December 22, 2012. Our board of directors determined that the events that had occurred from the October 2012 grant dates through the December 2012 grant date, which are discussed below, indicated a further increase in the likelihood of an initial public offering. The board of directors also considered that the events that occurred subsequent to the December 2012 grant date and through the February 2013 grant date did not indicate any change in the likelihood of an initial public offering. As a result, the board of directors obtained a retrospective third-party valuation of our common stock, which it intended to use as one of the factors in determining the reassessed fair value of our common stock for the awards granted in December 2012 and January and February 2013. This retrospective valuation considered the possibility of our initial public offering, in addition to the long-term liquidity event originally contemplated at the date of grant, as one of the factors considered by our board of directors in its determination of the retrospective reassessed fair value of common stock. The retrospective third-party valuation of our common stock was prepared considering two types of future event scenarios: an initial public offering in the near term, and a longer-term liquidity event (a private sale, merger or acquisition), consistent with then-current plans and estimates of our board of directors. This retrospective valuation was prepared using a hybrid of a discounted cash flow method, using the income approach for the initial public offering scenario, and the precedent transaction approach, using an OPM for the long-term liquidity event scenario.

The discounted future cash flow method, used under the income approach, for the initial public offering scenario involves applying appropriate discount rates to estimated cash flows that were based on forecasts of revenue, costs and capital requirements consistent with the methodology described above. To derive the value of the common

Table of Contents

stock under the discounted cash flow method, the proceeds to the common stockholders were calculated based on the preferences and priorities of the preferred and common stock and assumed the preferred shares would be converted to common shares upon the initial public offering in accordance with our restated certificate of incorporation and amended and restated bylaws. In our retrospective December 2012 valuation, we applied a risk-adjusted discount rate of 20%. Consistent with the precedent transaction approach above, we applied a discount for lack of marketability of 10% to reflect the increased risk arising from the inability to readily sell the shares.

The revised OPM, which was used to value the long-term liquidity scenario, was prepared assuming four years to liquidity, consistent with then-current plans and estimates of our board of directors. The increased timeframe of a long-term liquidity event from 2.6 years (in the May 2012 valuation) to 4 years resulted from our board of directors belief that the near-term liquidity event would be an initial public offering and the longer-term liquidity event should, with the recent additions to our management team, contemplate further development of our product candidates prior to a private sale, merger or acquisition. The valuation technique used to estimate equity value in order to derive the value of the common stock under the OPM was the precedent transaction approach, as described above. In December 2012, we completed a $9.3 million series C convertible preferred stock financing. Under the precedent transaction approach, we used the closing price of the series C financing to estimate the implied price of our common stock. In performing our December 2012 valuation, we used volatility of 59.7% based on historical trading volatility for our peer companies and a risk-free rate of 0.16% based on the then-average yield of U.S. Treasury Notes commensurate with our estimated time to liquidity. In addition, we applied a discount for the lack of marketability of 10% to reflect the increased risk arising from the inability to readily sell the shares.

Retrospectively, our board of directors considered events and circumstances that had occurred subsequent to the October grant dates and that were likely to have affected the likelihood of an initial public offering. These events included the execution of the license agreement with Pacira, which expanded our potential product offering to three products, potentially making our company more attractive in an initial public offering, the completion of our cat declaw pilot clinical study, and the continued progression of Zoetis in their initial public offering process during this period. Based on these considerations, management and our board of directors determined that, for purposes of the retrospective December 2012 valuation, the total probability for the initial public offering scenario was 25% and for the longer-term liquidity event was 75%. Accordingly, the common stock fair value was calculated as the weighted-average of these two future event scenarios using these percentages. Based on the qualitative factors described above and the results of our retrospective valuation analysis, our board of directors determined that the retrospectively reassessed fair value of our common stock as of December 22, 2012 was $2.59 per share.

Retrospective Valuation of Common Stock as of January 25, 2013, January 30, 2013 and February 28, 2013. In determining the retrospectively reassessed fair value of our common stock for the January and February award grant dates, our board of directors primarily focused on whether any circumstances or developments that occurred subsequent to the retrospective valuation of common stock as of December 22, 2012 indicated a change in the fair value of common stock as of those dates. With regard to the series C financing, the board determined that the liquidation preference associated with the financing resulted in a marginal decrease in the value of our common stock. However, the board of directors also determined that this decrease was offset by the hiring of members of our current management team, including our Chief Commercial Officer, who brought experience necessary to assist us in developing and commercializing our drug candidates. In addition, as of February 28, 2013, our board of directors determined that no adjustment was necessary to the probability of an initial public offering scenario based on the fact that we continued to operate our business in the normal course and had not yet engaged investment bankers, lawyers and accountants for an initial public offering. Based on the qualitative factors above and the results of our retrospective valuation analysis, our board of directors determined that the retrospectively reassessed fair value of our common stock as of December 22, 2012 remained unchanged through February 28, 2013.

The incremental stock-based compensation expense associated with the retrospectively reassessed fair value of awards granted between October 4, 2012 and February 28, 2013 has been reflected in the statements of operations and comprehensive loss for both the year ended December 31, 2012 and the three months ended March 31, 2013.

Stock-based Awards Granted on April 17, 2013

On April 17, 2013, our board of directors granted options to purchase an aggregate of 41,615 shares of our common stock with an exercise price of $5.57 per share. In establishing this exercise price, our board of directors considered the third-party valuation of our common stock performed as of March 31, 2013, input from management

Table of Contents

and other objective and subjective factors considered by our board of directors as discussed above. On February 28, 2013, our board of directors approved the pursuit of an initial public offering of our common stock and, in early March 2013, we engaged investment bankers, lawyers and accountants to start the process of assisting us to prepare for an initial public offering. On March 4, 2013, we entered into a loan and security agreement, or credit facility, with Square 1 Bank, which provided us with $5.0 million of non-dilutive financing to assist us in our in-licensing efforts to find additional drug candidates, and an ability to draw down an additional $5.0 million upon successful completion of an initial public offering. On March 6, 2013, we held our initial public offering organizational meeting. Additionally, in early March 2013, we believe that we resolved potential issues associated with the development of the API for one of our drug candidates, AT-001. During the same period, we also obtained data from our interim analysis of our pilot study for AT-002 in dogs, which achieved statistical significance in our primary endpoint of pet owner assessment of appetite. On March 20, 2013, we filed our initial registration statement with the SEC. In addition, our board of directors assessed the public market environment and conditions at March 31, 2013 and noted they continued to remain favorable for animal health companies; specifically the positive market reception of Zoetis initial public offering, which was completed in February 2013. In light of continued favorable market conditions and our submission of a registration statement to the SEC, we adjusted our valuation model as of March 31, 2013 to account for the increased probability of an initial public offering scenario, increasing the probability of an initial public offering to 60%. Although we filed our initial registration statement on March 20, 2013, we determined the probability of the initial public offering scenario to be 60% at March 31, 2013, because our registration statement had been on file for only ten days, we had not yet received a comment letter from the SEC on our initial registration statement and we did not anticipate completing our initial public offering within the next three months. In addition, although market conditions appeared to be favorable at the time, they are inherently unpredictable, and we could not be certain market conditions would remain favorable as we pursued the completion of our initial public offering. Based on changes in the market values of our competitor companies in the animal health market, developments in our product candidates, and the increased probability of an initial public offering of our common stock, the board of directors determined that the fair value of our common stock had increased to $5.57 per share on March 31, 2013 and remained unchanged through April 17, 2013.

On June 26, 2013, we and the underwriters determined the estimated price for this offering, as set forth on the cover page of this prospectus. The assumed initial public offering price is $6.00 per share. In comparison, our estimate of the fair value of our common stock as of April 17, 2013 was $5.57 per share. We note that, as is typical in initial public offerings, the estimated price for this offering was not derived using a formal determination of fair value, but was determined based upon discussions between us and the underwriters. Among the factors that were considered in setting this price were the following:

- the general condition of the securities markets and the recent market prices of, and the demand for, publicly traded common stock of generally comparable companies;
- an analysis of valuation ranges in initial public offerings for generally comparable companies in our industry during the past year;
- the recent performance of initial public offerings of generally comparable companies;
- estimates of business potential and earnings prospects for our company and the industry in which we operate; and
- our financial position.

We believe that the difference between the fair value of our common stock as of April 17, 2013 and the assumed initial public offering price for this offering is primarily the result of the following factors:

We determined the fair value of our common stock as of April 17, 2013 using a probability-weighted method, in which we weighted the probabilities of two possible future-event scenarios, an initial public offering at 60% and a longer-term liquidity scenario at 40%, to determine the enterprise value of the company. In contrast, the assumed initial public offering price contemplates only an initial public offering. If we had assumed a 100% probability of an initial public offering, the fair value of our common stock as of April 17, 2013 would have been $10.15 per share.

Table of Contents

- Historically, and we believe it is reasonable to expect that, the completion of an initial public offering increases the value of an issuer s common stock as a result of the increase in the liquidity and ability to trade such securities in the public market. As such, the assumed initial public offering price excludes any discount for lack of marketability for our common stock, which was estimated to be 8% and was appropriately taken into account in our board of directors determination of the fair value of our common stock as of April 17, 2013.
- The assumed initial public offering price necessarily assumes that the initial public offering has occurred, that a public market for our common stock has been created, and that all shares of our convertible preferred stock have converted into common stock in connection with the initial public offering. In contrast, our board of directors determination of the fair value of our common stock as of April 17, 2013 assumed that an initial public offering would occur in three months and appropriately discounted the initial public offering scenario to present value using a 20.5% discount rate. In addition, holders of our convertible preferred stock had then, and will have until the initial public offering, substantial economic rights and preferences over holders of our common stock, which were appropriately considered in our board of directors determination of the fair value of our common stock as of April 17, 2013.
- Equity markets in general improved modestly during the recent period, resulting in an increase in our market comparables. For example, in the period from April 17, 2013 to May 17, 2013, the S&P 500 index increased 7.4%, the NASDAQ Global Market index increased 5.7% and the NASDAQ Biotechnology index increased 8.8%.
- Several biotechnology initial public offerings that were completed in early 2013 were trading above their initial public offering prices as of May 6, 2013, including Enanta Pharmaceuticals, Inc. (up 49%), Tetraphase Pharmaceuticals, Inc. (up 17%), Chimerix Inc. (up 41%), and Insys Therapeutics, Inc. (up 37%).
- The proceeds of a successful initial public offering would substantially strengthen our balance sheet by increasing our cash position. Additionally, the completion of this offering would provide us with access to the public debt and equity markets. These projected improvements in our financial position influenced the increased common stock valuation indicated by the assumed initial public offering price.

In addition, since April 17, 2013, the following developments in our business that had a positive impact on the fair value of our common shares occurred:

- In late April 2013, the final analysis of our pilot study for AT-002 in dogs confirmed the statistically significant primary end point of higher pet owner assessment of appetite. This result was supported by a statistically significant weight gain in the AT-002-treated dogs compared to the placebo-treated dogs. While we had seen similar results in an interim analysis in early 2013, we did not receive the final data until late in April 2013.
- In late April 2013, the CVM confirmed the primary endpoint of owner-assessed increase in appetite for our pivotal field effectiveness study for AT-002 in dogs.
- In late April 2013, we publicly filed an amended registration statement with the SEC, evidencing continued progress toward completing our initial public offering.

Based on an assumed initial public offering price of $6.00 per share, the aggregate intrinsic value of stock-based awards outstanding as of April 17, 2013 was $8.8 million, of which $1.6 million related to vested stock-based awards and $7.2 million related to unvested stock-based awards.

Valuation of Series A-1 Preferred Stock

Simultaneous to the issuance of our series A convertible preferred stock in exchange for cash, we issued series A-1 convertible preferred stock as partial consideration for the purchase of an intellectual property license. Each share class contains different rights, priorities and preferences. The series A convertible preferred stock has voting rights and entitles the holder to a liquidation preference equal to the original purchase price of $1.00 per share, plus accumulated and unpaid cumulative cash dividends, which accrue at a rate of 8% per annum, compounded annually.

Table of Contents

The series A-1 convertible preferred stock, while non-voting and junior in preference to the series A convertible preferred stock, has a liquidation preference equal to the $2.00 original issue price per share, plus any declared and unpaid dividends, which is greater than that of the series A convertible preferred stock.

The series A convertible preferred stock was issued at an original price per share of $1.00. As 60% of the series A shares were issued to new investors, the $1.00 per share price was deemed to be the fair value of the series A convertible preferred stock. In order to determine the fair value per share of the series A-1 convertible preferred stock upon issuance, we obtained a contemporaneous third-party valuation as of the issuance date of these shares.

The series A-1 convertible preferred stock valuation was prepared using a probability weighting of two valuation approaches: the cost approach, using the current value method, and the precedent transaction approach, using the OPM. The cost approach estimates our equity value by estimating what it would cost another investor to create a similar business at the same stage of development. Under the cost approach, a valuation analysis is performed for a company s identified fixed, financial, intangible and other assets. The derived aggregate fair value of the assets is then netted against the estimated fair value of all existing and potential liabilities, resulting in an indication of the fair value of total equity. The current value method allocates our total equity value to the various classes of securities assuming a current liquidation. The precedent transaction approach under the OPM used the series A convertible preferred stock issuance to estimate the equity value from which to derive the value of the series A-1 convertible preferred stock and the common stock. Using the OPM, the rights of the preferred and common stock stockholders are modeled in a series of call options with exercise prices based on the value thresholds at which the allocation among the various holders of a company s securities changes. The OPM uses the Black-Scholes option-pricing model to price the call options. We allocated equity value using the OPM assuming 4 years to liquidity, consistent with then-current plans of management and our board of directors, and assumed volatility of 72%, based on historical volatility for our peer companies and a risk-free rate of 1.52%, based on the then-average yield of U.S. Treasury Notes commensurate with our estimated time to liquidity. We then applied a weighting of 75% to the series A-1 convertible preferred stock fair value derived from the current value method, given we were a newly-formed entity, and of 25% to the series A-1 convertible preferred stock fair value derived from the OPM. Accordingly, we determined the fair value of the series A-1 convertible preferred stock to be $1.70 per share, which was less than the $2.00 original issuance price.

Results of Operations

Comparison of the Three Months Ended March 31, 2012 and 2013

	Three Months Ended March 31,	
	2012	2013
	(Dollars in thousands)	
Revenue	$	$
Operating expenses		
Research and development	1,751	2,114
General and administrative	498	1,226
In-process research and development		
Other income		
Interest expense		(24)
Interest income	4	3
Other income		68

Revenue

We did not generate any revenue during either of the three month periods ended March 31, 2012 or 2013.

Table of Contents

Research and development expense

	Three Months Ended March 31,		
	2012	2013	% Change
	(Dollars in thousands)		
Outsourced development costs			
AT-001	$ 685	$ 777	
AT-002	854	628	
AT-003			
Personnel costs	116	497	
Other costs	96	212	
Total research and development	$ 1,751	$ 2,114	20.7%

Research and development expense increased by $0.4 million for the three months ended March 31, 2013 as compared to the same period in 2012. This increase was primarily due to a $0.4 million increase in personnel costs as a result of increased headcount, a $0.1 million increase in outsourced costs related to formulated drug development for our AT-001 compound and a $0.1 million increase in other costs related to travel to clinical sites, regulatory fees and external consultants, all offset by a decrease of $0.2 million in outsourced costs related to API formulation for our AT-002 compound as compared to the prior period.

We expect research and development expense will increase for the foreseeable future as we continue to increase our headcount, commence pivotal field effectiveness studies and further develop our compounds. At this time, due to the inherently unpredictable nature of our development, we cannot reasonably estimate or predict the nature, specific timing or estimated costs of the efforts that will be necessary to complete the development of our product candidates. We expect to fund our research and development expenses from our cash and cash equivalents, a portion of the net proceeds from this offering and any future collaboration arrangements. We cannot forecast with any degree of certainty which product candidates may be subject to future collaborations or contracts, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

General and administrative expense

	Three Months Ended March 31,		
	2012	2013	% Change
	(Dollars in thousands)		
General and administrative	$ 498	$ 1,226	146.1%

General and administrative expense increased by $0.7 million for the three months ended March 31, 2013 compared to the same period in 2012. This increase was primarily due to a $0.4 million increase in personnel-related costs, which was the result of higher salaries, employee benefits, travel and supplies due to increased headcount and a $0.3 million increase in consulting costs, which related primarily to legal and accounting services, as well as general corporate consulting in the areas of human resources, information technology and business development activities. We expect general and administrative expense to increase significantly as we begin operating as a public company and continue to build our corporate infrastructure in the support of continued development and commercialization of AT-001, AT-002 and AT-003 and other development programs.

In-process research and development expense

	Three Months Ended March 31,		
	2012	2013	% Change
	(Dollars in thousands)		
In-process research and development expense	$	$	N/A

59

Table of Contents

We did not recognize in-process research and development expense during either of the three month periods ended March 31, 2012 or 2013. We are engaged in an active in-licensing effort focused on identifying human therapeutics that we believe can be further developed and commercialized as pet therapeutics. We expect to incur additional in-process research and development expense as we identify and acquire or in-license additional product candidates.

Other income (expense)

Changes in the components of other income (expense) were as follows:

Interest expense

	Three Months Ended March 31,		
	2012	2013	% Change
	(Dollars in thousands)		
Interest expense	$	$ 24	NM

Interest expense increased by $24,000 for the three month period ended March 31, 2013 compared to the same period in 2012. This increase was due to interest expense related to our credit facility, which was entered into during March 2013. Accretion of the debt discount and deferred financing costs totaled $3,000, which is non-cash interest included in our interest expense above.

Upon the closing of this offering, we will issue additional shares of our common stock in satisfaction of accumulated and unpaid dividends on our convertible preferred stock, and we will recognize interest expense associated with the payments of those dividends.

Interest income

	Three Months Ended March 31,		
	2012	2013	% Change
	(Dollars in thousands)		
Interest income	$ 4	$ 3	(25.0)%

Interest income remained constant for the three month period ended March 31, 2013 compared to the same period in 2012 and primarily relates to interest earned related to investments in certificates of deposit.

Other income

	Three Months Ended March 31,		
	2012	2013	% Change
	(Dollars in thousands)		
Other income	$	$ 68	NM

Other income increased by $0.1 million during the three months ended March 31, 2013 compared to the same period in 2012. This increase was primarily due to income recognized under the agreement with the Kansas Bioscience Authority, which was entered into in March 2012.

Table of Contents

Comparison of the Years Ended December 31, 2011 and 2012

	Years Ended December 31,	
	2011	2012
	(Dollars in thousands)	
Revenue	$	$
Operating expenses		
Research and development	2,196	7,291
General and administrative	1,274	2,987
In-process research and development		1,500
Other income		
Interest income	6	21
Other income		121

Revenue

We did not generate any revenue during either of the years ended December 31, 2011 or 2012.

Research and development expense

	Years Ended December 31,		
	2011	2012	% Change
	(Dollars in thousands)		
Outsourced development costs			
AT-001	$ 1,613	$ 2,556	
AT-002	83	3,611	
AT-003			
Personnel costs	397	846	
Other costs	103	278	
Total research and development	$ 2,196	$ 7,291	232.0%

Research and development expenses increased by $5.1 million from 2011 to 2012. This increase was primarily due to a $0.9 million increase in outsourced costs related to formulation and dose ranging studies, as well as API formulation and formulated drug development, for our AT-001 compound, a $3.5 million increase in outsourced costs related to proof of concept and pilot pharmacokinetic prototype formulation studies in both cats and dogs for our AT-002 compound, a $0.4 million increase in personnel costs allocated to research and development activities due to increased headcount and a $0.2 million increase in other costs related to regulatory fees and external consultants. Since acquiring the worldwide exclusive rights to AT-001 and AT-002 for indications in animal health in December 2010, and through December 31, 2012, we have incurred outsourced development costs of approximately $4.2 million for AT-001 and approximately $3.7 million for AT-002. As of December 31, 2012, we had not incurred any outsourced development costs for our third program, AT-003.

General and administrative expense

	Years Ended December 31,		
	2011	2012	% Change
	(Dollars in thousands)		
General and administrative	$ 1,274	$ 2,987	134.5%

General and administrative expense increased by $1.7 million from 2011 to 2012. This increase was primarily due to a $1.0 million increase in personnel-related costs, which was the result of higher salaries and employee benefits due to increased headcount; a $0.6 million net increase in consulting costs, which related to legal, accounting and

61

Table of Contents

tax services, as well as business development activities; and a $0.1 million increase in public relations, rent and other general and administrative expenses.

In-process research and development expense

	Years Ended December 31, 2011	2012	% Change
	(Dollars in thousands)		
In-process research and development	$	$ 1,500	NM

In-process research and development expense increased by $1.5 million from 2011 to 2012. We incurred no in-process research and development expense for 2011. We incurred in-process research and development expense of $1.5 million for 2012 related entirely to the exclusive license, development and commercialization agreement we entered into with Pacira in December 2012 for our AT-003 compound. On the date of purchase, this technology had not reached technological feasibility in animal health indications and had no alternative future use in the field of animal health. As a result, the initial license fee of $1.0 million and initial milestone payment of $0.5 million were both recorded as in-process research and development expense.

Other income (expense)

Changes in the components of other income (expense) were as follows:

Interest income

	Years Ended December 31, 2011	2012	% Change
	(Dollars in thousands)		
Interest income	$ 6	$ 21	250.0%

Interest income increased by $15,000 from 2011 to 2012. The increase primarily related to a higher average cash balance that earned interest in 2012 compared to 2011 due to the $7.7 million in gross proceeds we received from our series B convertible preferred stock financing in February 2012.

Other income

	Years Ended December 31, 2011	2012	% Change
	(Dollars in thousands)		
Other income	$	$ 121	NM

Other income increased by $121,000 from 2011 to 2012. This increase was primarily due to research and development expense reimbursements received under the KBA research and development grant, which totaled $0.1 million for the year ended December 31, 2012.

Liquidity and Capital Resources

We have incurred losses and negative cash flows from operations and have not generated revenue since our inception in December 2010, and as of March 31, 2013, we had a deficit accumulated during development stage of $25.5 million. We believe that our cash, cash equivalent and short-term investments balances as of March 31, 2013 are sufficient to fund operations for the next twelve months. We anticipate that we will continue to incur losses for at least the next several years. We expect that our research and development and general and administrative expenses will continue to increase and, as a result, we may need additional capital to fund our operations, which we may obtain from public or private equity, debt financings or other sources, such as corporate collaborations and licensing arrangements.

62

Table of Contents

Since our inception in December 2010 through March 31, 2013, we have funded our operations principally through the receipt of $49.0 million in funding, consisting of $43.1 million from the private placement of convertible preferred stock, $5.0 million from our credit facility, $0.8 million pursuant to our manufacturing agreement with RaQualia and $0.1 million in grants from the KBA. As of March 31, 2013, we had cash, cash equivalents and short-term investments of $25.7 million. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation. Currently, our funds are held in cash and certificates of deposit.

Indebtedness

In March 2013, we entered into a credit facility with Square 1 Bank pursuant to which we borrowed $5.0 million, or Tranche One. Upon receipt of no less than $20.0 million in gross proceeds from an initial public offering, a sale of our equity securities or a corporate partnership, we are eligible to borrow an additional $5.0 million, or Tranche Two, through March 4, 2014. We are obligated to make monthly interest-only payments until March 4, 2014 at a variable rate equal to the greater of 2.25% above the prime rate (currently 5.5%), or 5.5% per annum, and commencing after March 4, 2014, we will make consecutive equal monthly payments of principal and interest through March 1, 2016 at a fixed interest rate equal to the greater of 2.25% above the prime rate as of March 4, 2014, or 5.5% for the remainder of the loan. We paid a $50,000 facility fee at the inception of the loan. If we consummate an acquisition during the period the loan is outstanding, we will be required to pay a fee of $125,000 if only Tranche One is outstanding, or $250,000 if both Tranche One and Tranche Two are outstanding at the time of the acquisition. We are required to meet a liquidity covenant in 2013 whereby we must have sufficient cash to fund our operating requirements for four months, and in 2014 we must meet a liquidity ratio of 1:1. In addition, we are required to maintain all of our operating accounts at the Square 1 Bank and, to the extent that we have more than $10 million in cash, at least half of our cash at Square 1 Bank. If we have less than $10 million in cash, we are required to keep all of our cash at Square 1 Bank. At March 31, 2013 we were in compliance with all financial covenants.

Cash Flows

The following table shows a summary of our cash flows for the periods set forth below:

	Years Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
	(Dollars in thousands)			
Net cash used in operating activities	$ (3,141)	$ (7,816)	$ (1,944)	$ (3,120)
Net cash used in investing activities	$ (6,549)	$ (1,010)	$	$ (8)
Net cash provided by financing activities	$ 7,542	$ 16,797	$ 7,699	$ 8,425

Net cash used in operating activities

During the three months ended March 31, 2012, net cash used in operating activities was $1.9 million. Net cash used in operating activities primarily resulted from our net loss of $2.2 million, partially offset by net cash provided from changes in operating assets and liabilities of $0.3 million. Our net loss was primarily attributed to research and development activities related to our AT-001 and AT-002 programs and our general and administrative expenses, as we had no revenue in the period. Net cash provided by changes in our operating assets and liabilities consisted primarily of increases in accounts payable and accrued expenses of $0.4 million, which primarily related to the timing of payments made for our outsourced research and development activities, offset by a $0.1 million decrease in other liabilities, due to payments made in the period.

During the three months ended March 31, 2013, net cash used in operating activities was $3.1 million. Net cash used in operating activities primarily resulted from our net loss of $3.3 million, partially offset by net non-cash charges of $0.1 million and by net cash provided from changes in operating assets and liabilities of $0.1 million.

Table of Contents

Our net losses were primarily attributed to research and development activities related to our AT-001 and AT-002 programs and our general and administrative expenses, as we had no revenue in the period. Our net non-cash charges primarily related to $0.1 million of stock-based compensation expense. Net cash provided by changes in our operating assets and liabilities consisted primarily of an increase of $0.7 million in accounts payable, offset by uses of cash related to a decrease of accrued expenses of $0.7 million. The increase in accounts payable primarily related to the timing of payments made for our outsourced research and development activities. The decrease in accrued expenses related primarily to the payment of employee bonuses and research and development expenses during the period.

During the year ended December 31, 2011, net cash used in operating activities was $3.1 million. Net cash used in operating activities primarily resulted from our net losses of $3.5 million, partially offset by net cash provided from changes in operating assets and liabilities of $0.3 million. Our net losses were primarily attributed to research and development activities related to our AT-001 and AT-002 programs and our general and administrative expenses, as we had no revenue in the period. Net cash provided by changes in our operating assets and liabilities consisted primarily of increases in accrued expenses and other liabilities of $0.4 million and $0.1 million, respectively, partially offset by a decrease in accounts payable of $0.1 million. The increase in accrued expenses and the decrease in accounts payable primarily relate to the timing of payments made for our outsourced research and development activities.

During the year ended December 31, 2012, net cash used in operating activities was $7.8 million. Net cash used in operating activities primarily resulted from our net losses of $11.6 million, partially offset by net non-cash charges of $1.6 million and net cash provided from changes in operating assets and liabilities of $2.2 million. Our net losses are primarily attributed to research and development activities related to our AT-001, AT-002 and AT-003 programs and our general and administration expenses, as we had no revenue in the period. Our non-operating charges in the period consisted primarily of a charge of $1.5 million related to in-process research and development acquired from Pacira that had not yet achieved technological feasibility in animal health indications and did not have an alternative use, and $0.1 million of stock-based compensation expense. Net cash provided from changes in our operating assets and liabilities consisted primarily of increases of $0.8 million in deferred income, $1.0 million in accrued expenses and $0.5 million in accounts payable, partially offset by a $0.1 million decrease in other liabilities. The increase in deferred income relates to the upfront payment received from the RaQualia contract which will be recognized as income upon delivery of all the services required under the contract. The increases in accrued expenses and accounts payable primarily relate to the timing of payments made for our outsourced research and development activities.

Net cash used in investing activities

During the three months ended March 31, 2012, we did not use cash for investing activities. During this period, we sold and purchased $1.0 million of marketable securities, resulting in no net change in cash.

During the three months ended March 31, 2013, net cash used in investing activities was $8,000, which related to purchases of property and equipment. During this period, we sold and purchased $0.7 million of marketable securities, resulting in no net change in cash.

During the year ended December 31, 2011, net cash used in investing activities was $6.5 million. Net cash used in investing activities primarily resulted from purchases of marketable securities of $6.4 million and an additional $0.1 million of cash required to collateralize our letter of credit which is classified as restricted cash.

During the year ended December 31, 2012, net cash used in investing activities was $1.0 million. Net cash used in investing activities primarily resulted from the purchase of in-process research and development from Pacira for $1.0 million. During this period, we sold and purchased $6.6 million of marketable securities, resulting in no net change in cash.

Table of Contents

Net cash provided by financing activities

During the three months ended March 31, 2012, net cash provided by financing activities was $7.7 million and resulted from gross proceeds of $7.7 million raised from the private placement of our series B convertible preferred stock, partially offset by issuance costs of $0.1 million.

During the three months ended March 31, 2013, net cash provided by financing activities was $8.4 million. Net cash provided by financing activities primarily resulted from gross proceeds of $2.8 million raised from the private placement of our series C convertible preferred stock; collection of a $0.7 million shareholder receivable related to series C convertible preferred stock that was issued in December 2012; gross proceeds of $5.0 million from our credit facility, offset by issuance costs of $0.1 million; and proceeds received from the exercise of stock options of $0.1 million.

During the year ended December 31, 2011, net cash provided by financing activities was $7.5 million. Net cash provided by financing activities was a result of gross proceeds of $7.7 million raised from the private placement of series B convertible preferred stock, partially offset by issuance costs of $0.2 million.

During the year ended December 31, 2012, net cash provided by financing activities was $16.8 million. Net cash provided by financing activities primarily resulted from gross proceeds of $7.7 million raised from the private placement of our series B convertible preferred stock, partially offset by issuance costs of $0.1 million; gross proceeds of $8.7 million raised from the private placement of series C convertible preferred stock, partially offset by issuance costs of $0.1 million; proceeds received from the exercise of stock options of $0.3 million; and proceeds received from the sale of restricted stock of $0.1 million.

Future Funding Requirements

We anticipate that we will continue to incur net losses for the next several years due to expenses for our development programs, including:

- pivotal field effectiveness studies in both cats and dogs for AT-001 in the United States and Europe;
- pivotal field effectiveness studies in both cats and dogs for AT-002 in the United States and Europe;
- dose confirmation and pivotal field effectiveness studies in both cats and dogs for AT-003 in the United States and Europe; and
- in-licensing of additional compounds for development as pet therapeutics.

In addition, we intend to hire additional personnel to build out a commercial sales force in the United States in anticipation of CVM approval of our products.

We believe the net proceeds from this offering, together with the proceeds from the March 2013 loan agreement and our existing cash and cash equivalents, will be sufficient to fund our operations for at least the next 24 months. Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors, including the factors discussed in the section of this prospectus entitled Risk Factors.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents and existing loan facility will allow us to fund our operating plan through at least the next 24 months. However, our operating plan may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned, through public or private equity or debt financings or other sources, such as strategic collaborations. Such financing may result in dilution to stockholders, imposition of debt covenants and repayment obligations, or other restrictions that may affect our business. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Table of Contents

Our future capital requirements depend on many factors, including, but not limited to:

- the results of our target animal studies for our current and future product candidates;
- the amount and timing of any milestone payments or royalties we must pay pursuant to our current or future license agreements or collaboration agreements;
- the timing of, and the costs involved in, obtaining regulatory approvals for any of our current or future product candidates;
- the upfront and other payments, and associated costs, related to our identifying and in-licensing new product candidates;
- the number and characteristics of the product candidates we pursue;
- the scope, progress, results and costs of researching and developing any of our current or future product candidates and conducting target animal studies;
- our ability to partner with companies with an established commercial presence in Europe to provide our products in that market;
- the cost of commercialization activities if any of our current or future product candidates are approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing our current and future product candidates and any products we successfully commercialize;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements;
- whether we are required to repay amounts that we received from the KBA, repurchase the shares of our capital stock owned by the KBA or repay Kansas income tax credits allocated to some of our investors (see Kansas Programs);
- our ability to draw funds from our existing credit facility;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims, including litigation costs and the outcome of such litigation.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of March 31, 2013 and the effect such obligations are expected to have on our liquidity and cash flows in future periods:

		Payments Due by Fiscal Year			
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
			(In thousands)		
Loan payable[1]	$ 5,568	$ 277	$ 5,291	$	$
Early exercise of stock-based options[2]	213	104	89	20	
Milestone payment[3]	500	500			
Total[4]	$ 6,281	$ 881	$ 5,380	$ 20	$

(1) Represents the contractually required principal and interest payments on our credit facility in accordance with the required payment schedule. Amounts associated with future interest payments to be made were calculated using the interest rate in effect as of March 31, 2013, which was 5.5%.

(2) Reflects the amount recorded as a liability for early exercise of a stock-based award. The amount will be reclassified to equity on a ratable basis as the award vests.

(3) Reflects initial milestone payment to Pacira in connection with our exclusive license, development and commercialization agreement. Additional milestone payments of up to $42.0 million will become due under our agreement with Pacira as we achieve additional regulatory and commercial milestones. In addition, we will pay tiered royalties on product sales. We cannot estimate or predict when, or if,

those amounts will become due.

Table of Contents

(4) The table above excludes milestone payments of up to $18.5 million and flat rate royalty payments that will become due in connection with our exclusive license agreement with RaQualia. The milestones payments will become due as we achieve regulatory and commercial milestones and the royalty payments will be paid upon product sales. We cannot estimate or predict when, or if, those amounts will become due.

Kansas Programs

In private offerings we conducted in December 2010, November 2011, February 2012 and January 2013, we issued to the KBA an aggregate of 500,000 shares of our series A convertible preferred stock, 166,666 shares of our series B convertible preferred stock and 81,037 shares of our series C convertible preferred stock in exchange for aggregate proceeds of approximately $1.3 million. Further, on March 6, 2012, the KBA granted us a research and development voucher award of up to $1.3 million.

Pursuant to Kansas law, we may be required to repay any financial assistance received from the KBA, which may include an obligation to repurchase the shares of our capital stock purchased by the KBA, subject to the discretion of the KBA, if we relocate the operations in which the KBA invested outside of the State of Kansas within ten years after receiving such financial assistance. Further, pursuant to the agreement accompanying the voucher award, the KBA may terminate the agreement and require us to repay the grant if we initiate procedures to dissolve and wind up or if we cease operations within the State of Kansas within ten years following the final grant payment.

In addition, 13 individual investors or permitted entity investors who purchased shares of our series B convertible preferred stock and up to 18 individual investors or permitted entity investors who purchased shares of our series C convertible preferred stock were allocated approximately $1.5 million in the aggregate in Kansas income tax credits from the Kansas Department of Commerce in connection with their purchase of such shares in private offerings. Each individual investor or owner of a permitted entity investor is required to certify to the Kansas Department of Commerce that he, she or it is an accredited investor as defined under Regulation D of Rule 501 under the Securities Act before receiving such tax credits. None of such recipients are directors, executive officers or beneficial owners of more than 5% of our capital stock.

Pursuant to Kansas law, if within ten years after the receipt of financial assistance from the Kansas Department of Commerce, we do not satisfy at least one of these criteria (a) being a corporation domiciled in Kansas, (b) doing more than 50% of our business in Kansas and (c) doing more than 80% of our production in Kansas, then we may be required to repay such tax credits in an amount determined by the Kansas Department of Commerce. We believe that Kansas authorities have not provided guidance as to how the 50% or 80% criterion would be measured.

Off-Balance Sheet Arrangements

Since inception, we have not engaged in the use of any off-balance sheet arrangements, such as structured finance entities, special purpose entities or variable interest entities.

Recently Issued and Adopted Accounting Pronouncements

Comprehensive Income Presentation of Comprehensive Income: In June 2011, the Financial Accounting Standards Board, or FASB, issued guidance which requires all non-owner changes in stockholders equity to be presented either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The option to present the components of other comprehensive income as part of the statement of changes in stockholders equity has been eliminated by this new guidance. In December 2011, the FASB issued guidance to indefinitely defer the effective date of the new requirement to present reclassifications of items out of adjustments of other comprehensive income in the income statement. However, all other remaining guidance contained in the new accounting standard for the presentation of comprehensive income was effective for our interim and annual periods beginning on January 1, 2012. We applied this guidance retrospectively for all periods presented. As the guidance relates only to how comprehensive income is disclosed and does not change the items that must be reported as comprehensive income, adoption did not have an effect on our financial position, results of operations or cash flows.

Table of Contents

Comprehensive Income Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income: In February 2013, the FASB issued guidance requiring entities to report the effect of significant reclassifications out of accumulated other comprehensive income on the respective line items in net income if the amount is required to be reclassified under U.S. GAAP. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. This guidance revised the previous guidance issued in June 2011 that was deferred. This guidance was applied by us for all interim and annual periods beginning on January 1, 2013. The adoption of this guidance did not have a material impact on our financial condition, results of operations or cash flows.

Fair Value Measurement Amendments to Achieve Common Fair Value Measurements and Disclosure Requirements in U.S. GAAP and IFRS: In May 2011, the FASB issued guidance which represents the converged guidance of FASB and the IASB on fair value measurement and disclosures. In particular, the new guidance: (1) requires the disclosure of the level within the fair value hierarchy level for financial instruments that are not measured at fair value but for which the fair value is required to be disclosed; (2) expands level 3 fair value disclosures about valuation process and sensitivity of the fair value measurement to changes in unobservable inputs; (3) permits an exception to measure fair value of a net position for financial assets and financial liabilities managed on a net position basis; and (4) clarifies that the highest and best use measurement is only applicable to nonfinancial assets. This guidance was applied prospectively for interim and annual periods beginning on January 1, 2012. The adoption of this guidance did not have a material effect on our financial condition, results of operations or cash flows.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Fluctuation Risk

Our cash and cash equivalents as of March 31, 2013 consisted primarily of cash and certificates of deposit. Our primary exposure to market risk for our cash and cash equivalents is interest income sensitivity, which is affected by changes in the general level of U.S interest rates. However, because of the short-term nature of the instruments in our portfolio, a sudden change in the interest rates associated with these instruments would not be expected to have a material impact on our financial condition or results of operations.

We have borrowed $5.0 million under our credit facility and will have the ability to borrow another $5.0 million upon the completion of this offering. Amounts outstanding under the credit facility bear interest at a variable rate equal to 2.25% plus the prime rate or, if greater, 5.5% through March 3, 2014. Commencing on March 4, 2014, amounts outstanding under the credit facility will bear interest at a fixed rate equal to 2.25% plus the prime rate or, if greater, 5.5%. Given the amounts outstanding and available under the credit facility, and the interest rate paid to date, we do not believe a 1.0% increase in the interest rate would have a material effect on our financial condition or results of operations.

We do not have any foreign currency or other derivative financial instruments.

Table of Contents

INDUSTRY

We operate at the intersection of the pet and animal health markets. Within this large universe, our exclusive focus is on pets unmet medical needs through the licensing, development and commercialization of prescription medication for pets, or pet therapeutics, which excludes parasiticides and vaccines.

The Pet Market

According to the American Pet Products Association, or APPA, U.S. consumers spent an estimated $53 billion on their pets in 2012, up approximately 38% over 2006, representing a compound annual growth rate, or CAGR, of approximately 5.5% over that period. Cats and dogs are the most popular pet species in the United States and Europe: there are approximately 96 million cats and 83 million dogs in the United States and 85 million cats and 74 million dogs in Europe. The United States is the single largest pet market, and currently 68% of U.S. households have a pet. The pet market has grown at rates far exceeding inflation, driven by increases in average spending per pet each year since 2006. Despite the prevailing worldwide economic conditions in 2008 and 2009, the amounts spent on pets in the United States continued its established growth trajectory in each of these two years. According to the 2011-2012 APPA National Pet Owner Survey, U.S. pet owners indicated that they spent more than $1,200 and $1,500 in the aggregate in basic annual expenses across ten categories for cats and dogs, respectively. Routine veterinary and surgical veterinary visits accounted for close to half of the spending across these ten categories. The following charts depict the growth in total expenditures in the U.S. pet industry from 1994 to 2012 and the estimated growth in spending on veterinarian care in the United States from 2006 to 2012.

Total U.S. Pet Industry Expenditures (in billions) **U.S. Veterinarian Care Spending (in billions)**

We believe the increased spending on pets is due in part to the changing attitude of pet owners toward their pets, specifically viewing pets as family. According to a 2011 survey by The Harris Poll of Harris Interactive, 91% of pet owners say they consider their pet to be a member of their family and 57% of pet owners say they frequently let their pet sleep in bed with them.

Market Size for Pet Therapeutics

The veterinary care segment has been among the fastest growing segments of the overall $53 billion U.S. pet market. The U.S. veterinary care segment, which resides at the intersection of the pet and animal health markets, has increased from $9.2 billion in 2006 to $13.6 billion in 2012, representing a CAGR of 6.7%. We estimate that of this $13.6 billion, approximately $6.3 billion related to consumer spending in pet medicines, which included approximately $4.7 billion for parasiticides and vaccines and approximately $1.6 billion for pet therapeutics. We derived these estimates using data from Vetnosis Limited, a research and consulting firm specializing in animal health and veterinary medicine, for sales of pet therapeutics directly to veterinarians and then adjusting the number to reflect a typical industry mark-up charged to the consumer by the veterinarian. The $1.6 billion U.S. pet therapeutics market represents less than $10 per year per pet. We believe that the pet market, driven in part by the expansion of the veterinary care segment, will continue to grow and that the introduction of novel pet therapeutics offering significant safety and efficacy benefits over existing products will result in pet therapeutics garnering a larger share of total consumer spending on pets.

Table of Contents

Pets Medical Needs

Pets are considered to be members of the family, which we believe causes pet owners to demand quality medical care with increasing regularity and which we expect will result in the continued medicalization of the pet market. This medicalization has already occurred in certain segments of the pet market, including diagnostics and veterinary services. For example, the companion animal group of Idexx Laboratories offers veterinarians disease management diagnostic solutions to provide veterinary care for pets. Net revenue for Idexx Laboratories companion animal group increased from $521 million in 2005 to $1.3 billion in 2012, representing a CAGR of 10.9%. We believe that pet owners will increasingly expect to be offered medication approved specifically for their pets when they visit a veterinarian.

Despite the relatively limited number of pet therapeutics on the market today that have been approved by the Food and Drug Administration s Center for Veterinary Medicine, or CVM, pet owners are increasingly comfortable treating their cats and dogs with medicine. According to the APPA, approximately 78% of U.S. dog owners treated their dogs with medications in 2010 as compared to 50% in 1998, and approximately 47% of U.S. cat owners treated their cats with medications in 2010 as compared to 31% in 1998. Most of these medications are parasiticides, and many of the medicines being offered to address other needs are off-label human medicines. However, the biological differences between humans and other species mean that drugs that are deemed safe and effective in humans may be harmful or ineffective if used in other species. Furthermore, certain approved pet therapeutics, such as the non-steroidal anti-inflammatory drug, or NSAID, class of products, have known and potentially serious side effects that limit their use and may require monitoring. We believe that medicines specifically developed for pets can improve the quality and extend the life of pets and help veterinarians achieve better medical outcomes. Advances in human medicines have created new therapeutics for managing chronic diseases associated with aging, such as osteoarthritis, cancer, diabetes and cardiovascular diseases. However, these advances have not yet been translated into innovative therapies for pets, notwithstanding the fact that pets are living longer and manifesting many of these same diseases of aging. In addition, pet therapeutics can increase convenience and compliance for pet owners by introducing medicines with simplified and more palatable dosage forms. Furthermore, we believe that as pet owners become more aware of the signs and symptoms of disease, especially if safe and effective therapies are available, pets will be diagnosed more frequently.

There have been relatively few approvals granted by the CVM and the European Medicines Agency, or EMA, in recent years despite a generally faster, less expensive and more predictable regulatory approval process for pet therapeutics than human therapeutics. For example, in 2012, 39 new human drugs were approved by the FDA, while only 11 new drugs were approved by the CVM, six of which were for use in cats or dogs. In 2011, the FDA approved 35 human drugs while only 12 new drugs were approved by the CVM. In Europe, the EMA approved 52 applications for human drugs in 2012, compared to three veterinary drugs.

Similarities and Differences: Pet Therapeutics and Human Therapeutics

The business of developing and commercializing therapeutics for pets shares a number of characteristics with the business of developing and commercializing therapeutics for humans. These similarities include products that must be proven safe and effective in clinical trials to be approved by regulators, a reliance on new product development through research and development, complex and regulated product manufacturing and products that are marketed based on labeled claims regarding impacts on health. However, there are also significant differences between the pet therapeutics and human therapeutics businesses, including:

Faster, less expensive and more predictable development

Similar to the process for approval of human therapeutics, regulatory agencies worldwide require, prior to regulatory approval, that a product to be used for pets is demonstrated to:

- be safe for the intended use in the intended species;
- have substantial evidence of effectiveness for the intended use;

Table of Contents

have a defined manufacturing process that ensures that the product can be made with high quality consistency; and
be safe for humans handling the product and for the environment.

However, development of pet therapeutics is generally faster and less expensive than for human therapeutics because it requires fewer clinical studies, involves fewer subjects and is conducted directly in the target species. Because there is no need to bridge from pre-clinical investigations in one species to the final target species, decisions on the potential efficacy and safety of products often can be made more quickly, and the likelihood of success often can be established earlier. In addition, in the United States, the processes of the CVM differ from the FDA processes for human drug development; the CVM encourages sponsors to contact the agency early in the development program and engage in an active dialogue with the CVM throughout the approval process. The ability to leverage both the prior discoveries and results from pre-clinical and clinical testing of products from human biopharmaceutical companies, coupled with the interactive nature of the CVM review process, yields faster, less expensive and more predictable development processes. This contributes to the enhanced process and greater capital and time efficiency of pet when compared to human drug development. For example, Tufts Center for the Study of Drug Development estimates that the cost of developing a new human drug is approximately $1.3 billion and takes about ten years to move from the lab to patients. In contrast, based on our internal evaluation of the development and regulatory approval process, we estimate that developing a pet therapeutic costs approximately $10 million and takes about five years to accomplish.

Role and economics of veterinary practices

In addition to the primary goal of improving the health of pets, veterinary practices can generate additional value and revenue growth by prescribing pet therapeutics. Unlike in the human pharmaceutical market, veterinarians often serve the dual role of doctor and pharmacist as pet owners typically purchase medicines directly from veterinarians. As a result, the sale of pet therapeutics directly to pet owners is a meaningful contributor to veterinary practice economics. The frequency of veterinary office visits and veterinarians direct dispensing of therapeutics has declined due to the shift of many of the largest selling parasiticides to over-the-counter and alternative channel distribution, including big box retailers and 1-800-PetMeds. As a result, veterinarians are seeking new ways to augment their practice income by providing differentiated care and products.

According to industry sources, approximately one-third of companion animal practice revenue comes from prescription drug sales, parasiticides, vaccines and non-prescription medicines. According to DVM Newsmagazine s State of the Profession Report, in 2012, pharmaceutical sales, excluding vaccines and parasiticides, comprised only 9% of an average veterinarian practice s revenue. We believe that this revenue stream could be increased significantly with the introduction of novel therapeutics that have been specifically developed for pets.

Table of Contents

As illustrated in the chart below, diagnostics, surgery and noninvasive procedures are also important components in the veterinarian practice revenue mix, and we believe that these segments will grow alongside pet therapeutics with the continued medicalization of the pet market. We believe that over the next several years, the veterinarian s revenue from the vaccine, flea-tick and heartworm segments will decrease and that veterinarians will need to replace this revenue to maintain the overall financial viability of their practices. Pet owners willingness to spend on their pets medical needs has increased and we believe it will continue to increase. Each year since 1997, the DVM Newsmagazine State of the Profession survey has asked veterinarians to estimate the total dollar amount at which most of their clients would refuse or stop treatment for their pets: in 1997 it was $576, in 2003 it was $961, and in 2012 it was $1,704. Given our estimates that on average pet owners are spending $10 per year on pet therapeutics, we believe that if safe and effective pet therapeutics products are available, veterinarians will prescribe them and pet owners will buy them. The following chart is based on data from DVM Newsmagazine s State of the Profession Report for 2012 and depicts the average percentage of practice revenue that veterinarians received for various services and medicines in 2012.

Average Veterinary Practice Revenue Mix 2012

Partnership relationships with, and better access to, veterinarian decision-makers

The pet therapeutics industry typically uses a combination of sales representatives to inform veterinarians about the attributes of products and technical and veterinary operations specialists to provide advice regarding local, regional and worldwide trends. In many cases, a pet therapeutics sales representative is viewed by the veterinarian as both an educator and a business partner. These direct relationships allow pet therapeutics sales representatives to understand the needs of the veterinarians and ultimately pet owners and develop products to better meet those needs. Additionally, sales representatives focus on partnering with veterinarians to educate and support them on topics such as disease awareness and treatment options. As a result of these relationships, sales and consulting visits are typically longer and more meaningful, and sales representatives have better access to veterinarian decision makers as compared to human health. These direct sales relationships are supplemented by use of third-party distributors to reach a broader audience of veterinarians.

Table of Contents

Primarily private-pay nature of veterinary market

Pet owners generally pay for pet healthcare, including pet therapeutics, out-of-pocket. Third-party insurance covers less than 5% of U.S. pet owners. Pet owners make decisions primarily on the advice of their veterinarian, without the influence of insurance companies or government payers that are often involved in product and pricing decisions in human healthcare. We believe that this dynamic results in less pricing pressure than in human health. Furthermore, this enables pet therapeutics companies to directly market to pet owners to encourage them to consult with their veterinarians.

Lack of robust generic competition and strong brand loyalty

There is no large, well-capitalized industry principally focused on generic pet therapeutics. Reasons for this include the smaller market size of each product opportunity, the importance of direct sales distribution and education to veterinarians and the primarily private-pay nature of the business. We believe that this dynamic also results in less pricing pressure than in human health. For example, although Rimadyl, the leading prescription product for the treatment of osteoarthritis in dogs, lost regulatory exclusivity in the United States in 2001, revenues from Rimadyl have increased despite generic competition that was introduced in 2005. The importance of quality and safety concerns to pet owners and veterinarians also contributes to brand loyalty. As a result, we believe that significant brand loyalty to products often continues after the loss of patent-based and regulatory exclusivity.

Although there are several differences between the pet therapeutics and human therapeutics businesses that make the pet therapeutics market attractive, some of the differences between the two businesses present challenges for the pet therapeutics market. For example, even though pets are increasingly considered members of the family, we expect that pet owners generally will not be willing to spend as much to care for the health of their pets as they will to care for their health or the health of their human family members. Additionally, only limited medical insurance for pets exists, making most veterinary expenses, including pet therapeutics, private pay, which further limits the ability of pet owners to provide appropriate medical care to their pets. In some instances, human biopharmaceutical companies may be unwilling to license us their products or compounds for development as pet therapeutics because of perceived regulatory and commercial risks. These differences can present challenges to participants in the pet therapeutics market including us.

Table of Contents

BUSINESS

Overview

We are a development-stage biopharmaceutical company focused on the licensing, development and commercialization of innovative prescription medications for pets, or pet therapeutics. We operate at the intersection of the more than $50 billion annual U.S. pet market and the more than $20 billion annual worldwide animal health market. We believe that we can leverage the investment in the human biopharmaceutical industry to bring therapeutics to pets in a capital and time efficient manner. Our strategy is to in-license proprietary compounds from human biopharmaceutical companies and to develop these product candidates into regulatory-approved therapeutics specifically for use in pets. We believe the development and commercialization of these therapeutics will permit veterinarians and pet owners to manage pets medical needs safely and effectively, resulting in longer and improved quality of life for pets.

In order to successfully execute our plan, we have assembled an experienced management team consisting of veterinarians, physicians, scientists and other professionals that apply the core principles of drug development to the medical needs of pets. The members of our senior management team combined have over 100 years of experience in the animal health and human biopharmaceutical industries, as well as a strong track record of successfully developing and commercializing therapeutics for pets. Our Chief Scientific Officer and our Head of Drug Evaluation and Development have been actively involved in the development of 20 and 22, respectively, animal health products that have obtained regulatory approval. Our Chief Commercial Officer has been responsible for guiding the launch of 22 animal health products, including the highest selling product for the treatment of pain in dogs, Rimadyl.

Since our founding in 2010, we have licensed three compounds, AT-001, AT-002 and AT-003, that we are developing into six products for use in pets in the United States and Europe. We are conducting clinical studies designed to confirm the safety and effectiveness of selected dose regimens, referred to as dose confirmation studies, for AT-001 for the treatment of pain and inflammation associated with osteoarthritis in dogs and for AT-002 for the treatment of inappetence in both cats and dogs. Once these studies are complete, we intend to start clinical studies intended to provide substantial evidence required for regulatory approval, referred to as pivotal effectiveness studies, and assuming we enroll a sufficient number of client-owned pets in a timely manner, we expect to have results from these pivotal studies in late-2013 and 2014. We intend to initiate dose confirmation studies for AT-003 for the treatment of post-operative pain in both cats and dogs in mid-2013. We aim to submit new animal drug applications, or NADAs, for U.S. approval for the majority of these potential products in 2015 and 2016 and to make similar regulatory filings for European approval in 2016 and 2017. We plan to commercialize our products in the United States through a direct sales force, complemented by distributor relationships, and in Europe and rest of world through commercial partners.

We believe that the role of pets in the family has significantly evolved over the last two decades. Many pet owners consider pets important members of their families, and they have been increasingly willing to spend money to maintain the health of their pets. Consequently, pets are living longer and, as they do, are exhibiting many of the same signs and symptoms of disease as humans, such as arthritis, obesity, diabetes, cancer and heart disease. Today veterinarians have comparatively few drugs at their disposal that have been specifically approved for use in pets. As a result, veterinarians often must resort to using products approved for use in humans but not approved, or even formally studied, in pets, relying on key opinion leaders and literature, rather than regulatory review. Given the biological differences between humans and other species, drugs that are considered safe and effective in humans may be harmful or ineffective if used in other species. Furthermore, certain approved pet therapeutics, such as the non-steroidal anti-inflammatory drug class of products, or NSAIDs, have known and potentially serious side effects that limit their use and may require monitoring. We believe that pets deserve therapeutics that have been specifically studied and approved by regulatory authorities for each species, and that veterinarians and pet owners will increasingly demand that therapeutics are demonstrated to be safe and effective in pets before using them.

Table of Contents

Our goal is to become a leading provider of therapeutics developed and approved specifically for the treatment of unmet medical needs in pets. We estimate that the U.S. market for veterinary care is approximately $13.6 billion, of which pet therapeutics represent approximately $1.6 billion. However, we believe that there are many unmet or underserved medical needs in pets that are amenable to therapeutic treatment and that the pet therapeutics portion of the market can grow significantly as safe and effective therapeutics are identified, developed and marketed.

We have an active in-licensing effort focused on identifying human therapeutics for development and commercialization as pet therapeutics. We seek to identify compounds that have demonstrated safety and effectiveness in at least two species and are in, or have completed, Phase I or Phase II clinical trials in humans, with well-developed active pharmaceutical ingredient, or API, process chemistry and a well-defined manufacturing process. Once identified, we seek to obtain exclusive, worldwide rights to these compounds in the animal health field and believe that we can bring the products to market for pets quickly and efficiently. We believe that our product candidates, if approved, will enable veterinarians to deliver a higher level of medical care to pets while providing an important revenue stream to the veterinarian s practice.

We currently have three licensed compounds in development for six product approvals in cats and dogs in each of the United States and Europe. The following table identifies each of our compounds in development, the company from which we are licensing the compound, its potential indication, development status including the date of our investigational new animal drug, or INAD, filing, and expected next step in the development process.

Compound (Licensor)	Species	Indication	INAD Filing	Development Status	Expected Next Step
AT-001 (RaQualia)	Dog	Pain and inflammation associated with osteoarthritis	February 2011	Dose confirmation study ongoing	Pivotal field effectiveness study
	Cat	Pain management	September 2012	Selection of indication	Dose confirmation study
AT-002 (RaQualia)	Dog	Stimulation of appetite	November 2011	Dose confirmation study ongoing	Pivotal field effectiveness study
	Cat	Stimulation of appetite	March 2003[(1)]	Dose confirmation study ongoing	Pivotal field effectiveness study
AT-003 (Pacira)	Dog	Post-operative pain management	January 2013	Proof of concept study ongoing	Dose confirmation study
	Cat	Post-operative pain management	January 2013	Proof of concept study ongoing	Dose confirmation study

(1) Date of initial filing; transferred to us in June 2011.

Upon completion of the development program, we plan to submit these product candidates for approval in the United States to the Food and Drug Administration s Center for Veterinary Medicine, or CVM, and for approval in Europe to the European Medicines Agency, or EMA. We expect to have each of these product candidates approved for use in the United States and Europe in both cats and dogs, starting with our first product approval in 2016.

Table of Contents

Business Strategy

Our goal is to become a leading provider of therapeutics developed and approved specifically for the treatment of unmet medical needs in pets. We are a pet-focused company and we intend to help shape and define the pet therapeutics market. We plan to accomplish this by:

Continuing to expand our product pipeline by in-licensing additional compounds. We believe the pet therapeutics market is significantly underserved and have identified for further pursuit more than 20 therapeutic areas that overlap with areas of human biopharmaceutical development. We seek to identify compounds that have demonstrated safety and effectiveness in at least two species and are in, or have completed, Phase I or Phase II clinical trials in humans. We are looking for compounds with well-developed API process chemistry. Once identified, we seek to obtain exclusive, worldwide rights to these compounds in the animal health field. Each of our current compounds is covered by patents and other intellectual property that provide for a multi-year period of market exclusivity. Additionally, we intend to seek opportunities to partner with companies where we can provide commercialization for their approved, or close to approved, pet therapeutic products.

Advancing our existing compounds, AT-001, AT-002 and AT-003, to regulatory approval. We are developing three compounds for six product approvals in cats and dogs in each of the United States and Europe. Generally, to obtain regulatory approval for our products we must be able to demonstrate that the drug is safe and effective when used at the intended dose and that we can manufacture the drug in sufficient quantities and with sufficient stability. We are conducting dose confirmation studies for AT-001 for the treatment of pain and inflammation associated with osteoarthritis in dogs and for AT-002 for the treatment of inappetence in both cats and dogs. Once these dose confirmation studies are complete, we intend to start the pivotal studies and, assuming we enroll a sufficient number of client-owned pets in a timely manner, we expect to have results from these pivotal studies in late-2013 and 2014. We intend to initiate dose confirmation studies for AT-003 for the treatment of post-operative pain in both cats and dogs in mid-2013, and we aim to continue to evaluate potential indications for AT-001 for the treatment of pain in cats. Concurrently, we plan to continue progressing on other regulatory requirements such as safety and manufacturing. We plan to submit new animal drug applications, or NADAs, to the CVM for the majority of these potential products in 2015 and 2016 and to make similar regulatory filings in the EMA in 2016 and 2017.

Using a direct sales organization and distributors to commercialize our products in the United States. If approved for commercialization, we intend to employ a direct sales organization, complemented by strategic distributor relationships intended to extend our commercial reach, to market our products in the United States. Our direct sales organization and distributors will sell products directly to veterinarians, who in turn typically sell pet therapeutics products to pet owners at a mark-up. In light of the veterinarian s goal of improving the health of pets and the ability to generate revenue from the sale of therapeutic products, we believe veterinarians are motivated to prescribe innovative therapeutics that are safe, effective and supported by reliable clinical data and regulatory approval. Based on our current development plans, we expect to generate initial product revenue from at least one of our existing product candidates in 2016.

Engaging active partners to build a commercial presence outside the United States. We have in-licensed the rights in Europe for the use of our compounds in animal health, and we intend to seek regulatory approval for our pet therapeutics in Europe. We plan to identify companies with an established commercial presence in Europe that are looking for additional products and to partner with those companies to provide our products in that market. We believe there are several animal health companies which, despite their focus on the development of parasiticides and life-cycle management of their product lines, desire innovative pet therapeutics. We expect these companies will be interested in partnering with us to provide EMA approved best-in-class or first-in-class therapeutic products. Outside of the United States and Europe we own rights to use our compounds in other significant territories, and we plan to seek partners that can assist us with both development and commercialization of our products in those territories. We intend to commence partnering discussions in late 2013.

Table of Contents

Leveraging our management team s established experience in the human biopharmaceutical and animal health industries. In order to successfully execute our plan, we have assembled an experienced management team consisting of veterinarians, physicians, scientists and other professionals that apply the core principles of drug development to the medical needs of pets. The members of our senior management team combined have over 100 years of experience in the animal health and human biopharmaceutical industries, as well as a strong track record of successfully developing and commercializing therapeutics for pets. Our Chief Scientific Officer and our Head of Drug Evaluation and Development have been actively involved in the development of 20 and 22, respectively, animal health products that have obtained regulatory approval. Our Chief Commercial Officer has been responsible for guiding the launch of 22 animal health products, including the highest selling product for the treatment of pain in dogs, Rimadyl.

Product Selection and Development

We believe the pet therapeutics market is significantly underserved, and we have identified for further pursuit more than 20 therapeutic areas that overlap with areas of human biopharmaceutical development. We are actively engaged in the pursuit of compounds and molecules in various stages of human and animal development through a systematic and opportunistic approach. We review and evaluate potential compounds for development using our in-house team of pet health experts and outside consultants. In selecting potential compounds for development, our team relies on database searches, medical literature, patent review and their extensive knowledge of companies involved in human biopharmaceutical research. In some instances, we may enter into an agreement that gives us the exclusive opportunity to further investigate the compound prior to its in-licensing. We review all products with a goal of developing them for cats, dogs or both and achieving regulatory approval in the United States and Europe.

We do not engage in early-stage research or discovery. Rather, we seek to identify compounds that have demonstrated safety and effectiveness in at least two species, such as mice, rats, dogs or humans, and are in or have completed Phase I or Phase II clinical trials in humans. We identify these compounds by focusing on human biopharmaceutical products in development where we can leverage the existing investment in those products. As a prerequisite for human trials, the FDA requires pre-clinical safety studies in two mammalian species. These safety studies are often conducted in dogs, which in many cases allows us to rely on those studies for demonstrating safety for our intended use. For example, prior to licensing AT-001 and AT-002 from RaQualia Pharma, Inc., or RaQualia, we obtained a significant amount of data from dog safety studies of AT-001 and AT-002. This information allowed us to evaluate the risk of development prior to licensing the compound and to initiate a proof of concept study in dogs prior to investing in key pivotal studies.

We also seek to identify compounds with well-developed API process chemistry, allowing us to further leverage the existing investment in the human biopharmaceutical product. As products proceed through human development, API manufacturing processes become more defined and we can more easily evaluate the route to the scale-up required for commercialization. A significant part of the product review process includes a thorough review of the manufacturing, which is conducted by our experienced manufacturing and development personnel.

As an innovator, we receive in-bound requests to license compounds and molecules from potential collaborators. We believe our experience in pet therapeutics and human drug development makes us an attractive partner or licensee for companies that are looking for capital efficient ways to leverage their existing product portfolios.

When a compound or molecule is identified, we attempt to enter into a license agreement where we obtain exclusive, worldwide rights to its development and commercialization in animal health. In exchange, we typically pay an upfront amount and a combination of milestones and royalties going forward.

Table of Contents

Products in Development

AT-001

Overview

AT-001 is a selective prostaglandin E receptor 4, or EP4, antagonist that we in-licensed from RaQualia, a spin-out from Pfizer Inc. AT-001 was originally discovered by Pfizer and achieved proof of concept for treatment of osteoarthritis pain in two Phase II clinical trials in humans. RaQualia has announced the results of a Phase IIa clinical trial confirming that the AT-001 compound, which they refer to as RQ-7, has an equivalent effect on pain as non-steroidal anti-inflammatory drugs, or NSAIDs, and has shown through endoscopic exams that it is safer for the gastrointestinal tract than a NSAID.

The multicenter, randomized, double-blind, active- and placebo-controlled seven-day endoscopic GI safety study, which administered AT-001 at 75 mg twice daily (BID) and naproxen, a positive control NSAID, at 500 mg BID, over a seven-day period, resulted in statistically significant differences in the incidence of gastroduodenal erosions with no ulcers. The study was conducted in two cohorts, with patients randomized to receive either AT-001, Naproxen or a placebo. The study evaluated, for each treatment group, the incidence of six or more erosions with no gastroduodenal ulcers and the incidence of ulcers at the end of the seven-day period. Differences with a p-value of less than 0.05 were determined to be statistically significant. P-values are an indication of statistical significance reflecting the probability of an observation occurring due to chance alone. A p-value of less than 0.05 means that the probability of the event measured occurring by chance is less than one in 20. The incidence of erosions without ulcers in cohorts 1 and 2 was 14% and 25%, respectively, for Naproxen compared to zero and 8%, respectively, for AT-001. In each cohort, the difference between Naproxen and AT-001 had a p-value of less than 0.05, demonstrating statistical significance. The incidence of ulcers in cohorts 1 and 2 was 5% and 18%, respectively, for Naproxen compared to 2% and 5%, respectively, for AT-001. The difference between Naproxen and AT-001 in cohort 2 had a p-value of less than 0.05, demonstrating statistical significance. However, the difference between Naproxen and AT-001 in cohort 1 had a p-value greater than 0.05 and was not statistically significant. We did not analyze results at any other endpoints in the study and, therefore, have no other data where the difference between Naproxen and AT-001 was not statistically significant.

Medical need

Osteoarthritis is the most common inflammatory joint disease in pets. The prevalence of osteoarthritis increases with age, usually occurring in cats and dogs aged nine years or older, but it can occur even in young animals. According to industry sources, the number of pets diagnosed with arthritis has significantly increased over the past five years and an estimated 13% of all geriatric dogs, and 22% of geriatric large and giant breed dogs, are diagnosed with arthritis. We believe many dogs with arthritis remain undiagnosed. Osteoarthritis is a progressive disease that can first manifest itself with periodic signs of stiffness or lameness and can progress to where the pet is experiencing constant joint pain and stiffness. Affected cats and dogs may show signs of irritability and reclusiveness.

Osteoarthritis is diagnosed in animals by the veterinarian using clinical signs and radiographs. The disease is incurable, but treatment can improve the cat s or dog s quality of life. Treatment includes a combination of rest, avoidance of overexertion, reduction in weight, proper exercise and a regimen of pain and anti-inflammatory drugs. In some cases, surgery to relieve the pain or correct deformities or instability might also be employed.

Currently available treatments and their limitations

Analgesic and anti-inflammatory drugs are often necessary to control pain in cats and dogs with osteoarthritis. The currently approved products for control of the pain and inflammation associated with osteoarthritis in dogs are NSAIDs from the class of cyclooxygenase, or COX, inhibitors, or Coxibs. The arachidonic acid pathway constitutes the main mechanism for the production of pain and inflammation in osteoarthritis. This pathway also controls other

Table of Contents

important body functions such as kidney regulation, gastrointestinal mucosal protection, thrombosis and blood flow through the enzymatic synthesis of mediators in multiple steps along the pathway. Three COX isoenzymes have been identified COX-1, COX-2 and COX-3. COX-2 initiates the biosynthesis of prostaglandin-I_2, or PGI_2, and prostaglandin-E_2, or PGE_2. PGI_2 affects gastrointestinal mucosa, kidney function and blood flow. PGE_2 also affects gastrointestinal mucosa and is a key mediator of pain and inflammation. The inhibition of COX enzymes to provide relief from pain and inflammation is the mode of action of NSAIDs.

The first product approved for the control of pain and inflammation associated with dog osteoarthritis was Rimadyl (carprofen). The introduction of this product created a product category around a previously unmet medical need and fundamentally changed the management of chronic pain in dogs. Rimadyl is a moderately selective inhibitor of COX-2 and has demonstrated selective inhibition of COX-2 versus COX-1 in dogs. While side effects in most dogs are generally mild and typical of the NSAID class, some dogs have an idiosyncratic sensitivity that results in hepatic and/or gastrointestinal toxicity and, in extreme cases, death. As a result, NSAID label language contains bolded warnings and specifies that baseline blood tests should be conducted, and pets should be periodically monitored using blood tests to check for any toxic effects. Additionally, cats appear to metabolize NSAIDs differently than dogs, resulting in more severe side effects. Rimadyl is not approved for use in cats and no other Coxibs are approved in the United States for more than three days of use in cats.

Market opportunity

According to the April 2012 Brakke Consulting Pain Management Products Survey, the U.S. cat and dog analgesic market was approximately $260 million in 2011 and consisted mostly of NSAIDs with sales of approximately $220 million. We estimate the worldwide market for NSAIDs exceeded $450 million in 2012. According to a survey of 233 veterinarians conducted by Brakke Consulting in March 2012, veterinarians recommended NSAID therapy for 82% of the dogs they treated with osteoarthritis, and they believe approximately 60% receive treatment. The Market Dynamic Inc. sales audit data shows that over 4 million dogs per year are receiving an average of 20 days of treatment with NSAID therapy. The NSAID segment is one of the fastest growing categories in pet therapeutics over the last fifteen years; it continued to expand with four additional NSAID Coxib approvals and the approval of the first of five generic carprofen products starting in 2005. Rimadyl remains the leading prescription treatment with 2011 U.S. sales of $90 million and 40% market share. According to Brakke, sales of generic carprofen were $20 million, or 9% market share, in 2011, up 25% from 2010.

Given the associated side effects and required monitoring with blood tests that are associated with NSAID therapy, there is a population of dogs that remains untreated or cannot be treated chronically. Additionally, while up to 30% of cats over the age of eight have osteoarthritis, the currently available products in the United States cannot be used to treat cats for chronic pain associated with osteoarthritis. We believe there is a significant market opportunity for a therapeutic product that can manage the pain and inflammation associated with osteoarthritis in pets with an improved safety profile and that does not require regular blood monitoring.

Table of Contents

Our Solution AT-001

Unlike Coxib NSAIDs, AT-001 is a selective EP4 receptor antagonist. EP4 is one of four G-protein coupled PGE_2 receptors (EP1, EP2, EP3 and EP4) located on the membrane of various cells in the mammalian body. The EP4 receptor predominantly mediates PGE_2-elicited pain. The specific effects of the binding of PGE_2 to the EP4 receptor include vasodilation, increased permeability, angiogenesis and production of pro-inflammatory mediators. The EP4 receptor mediates PGE_2-elicited sensitization of sensory neurons, and studies published in the Journal of Pharmacology and Experimental Therapeutics and in the British Journal of Pharmacology have demonstrated that EP4 is a major receptor in mediating pain associated with both rheumatoid arthritis and osteoarthritis and inflammation. EP4 knockout mice, which are mice that have been genetically manipulated not to express the EP4 receptor, but not EP1, EP2 or EP3 receptor knockout mice, have exhibited decreased inflammation and decreased incidence and severity of disease in experimental models of arthritis. As depicted in the figure below, a selective EP4 receptor antagonist does not interfere with EP1, EP2 or EP3 receptor-mediated signaling, and does not affect prostaglandin biosynthesis, which is important for the maintenance of the gastrointestinal, renal and platelet function. Unlike Coxib NSAIDs, an EP4 receptor antagonist does not change prostanoid homeostasis. Treatment with Coxib-type drugs can result in PGI/TXA2 imbalance which is postulated as the cause of the cardiovascular side-effects of this drug class.

AT-001 binds selectively to the EP4 receptor with high affinity thus blocking it from PGE_2-mediated pain and inflammation. The human, rat, dog and cat EP4 receptor genes were cloned and showed similar binding affinity with AT-001. In receptor binding studies, the inhibitor constants, or Ki value, of AT-001 for human, rat and dog receptors were determined indicating that AT-001 binds to the receptor with high affinity. Ki value reflects the concentration of inhibitor that is required to decrease the maximal rate of the reaction to half of the uninhibited value.

AT-001 has achieved proof of concept in two Phase II clinical trials performed by RaQualia in humans with osteoarthritis knee pain. The trials included patients who received AT-001, Naproxen, which is an NSAID, or placebo. More than 500 human patients were dosed with our compound. The compound was well-tolerated and demonstrated statistically significant reduction in pain scores as compared to placebo. Based on the results generated with our compound by RaQualia in humans, we believe that selective antagonism of the EP4 receptor should have fewer drug side effects and similar efficacy as compared to Coxib NSAIDs in cats and dogs.

Table of Contents

AT-001 in dogs

Safety. In the toxicology program that was conducted by RaQualia to support human drug development, a series of studies investigated the effects of oral administration of AT-001 to male and female laboratory dogs. We intend to use the results from a nine-month GLP toxicology study of oral AT-001 given daily as the pivotal study to be submitted to the regulatory authorities to demonstrate target animal safety in dogs. The nine-month GLP toxicology study was undertaken to evaluate the potential toxicity and systemic exposure of AT-001 when administered orally, once daily, for nine consecutive months to dogs and to assess the reversibility of any toxic changes. In the study, AT-001 was administered orally once daily at doses from 0 to 50 mg/kg. A total of 36 dogs were evaluated in four dose groups, with each dose group consisting of four male and four female dogs. Four additional dogs, two male and two female, were evaluated in the 50 mg/kg dose group for recovery purposes. Clinical signs and food consumption were assessed daily. Body weight was recorded weekly. Ophthalmologic examinations, electrocardiograms, hematology, serum chemistry and urinalyses were monitored periodically. In the high dose group only, serum drug concentrations of AT-001 were measured at several time points after dosing on day 1 and on a single day in week 38. At the end of the dosing or recovery period, dogs were necropsied and further examined.

The study demonstrated no drug-related effects on body weight, food consumption, ophthalmology, electrocardiograms, hematology, coagulation, organ weights and gross pathological findings during the nine-month dosing period. Gastrointestinal effects such as loose or mucous stool, which sometimes included slight bloody or red material, were observed in all dose groups including the control, though the incidence was higher in some animals of the drug groups compared with that in the control group. A significant decrease in mean serum albumin was observed at weeks 26 and 39 in the highest dose group (50 mg/kg). The serum parameter changes were recovered at the end of the recovery period. There were no noteworthy findings during or at the end of the four-week recovery period.

In addition to the results from the nine-month study, our data safety package will also include a pharmacokinetic study that bridges from the formulation used in the toxicity study to the final commercial tablet formulation. The protocol of the pharmacokinetic bridging study will be submitted to the CVM for review and concurrence. We believe this data package will be acceptable to the CVM to complete the target animal safety section of the NADA for AT-001.

Effectiveness. We performed initial proof of concept studies in laboratory dogs with artificially induced osteoarthritis. We believe these studies signaled that the compound is effective, though the variability and the small group sizes limited the power of the results. Consequently, we have commenced another study to confirm efficacy and select a dose. This study is a multi-site, randomized, blinded field study in client-owned pets with osteoarthritis. The study is designed to enroll over 300 dogs across four treatment arms including three different AT-001 treatment regimens and a placebo. Effectiveness in the study is being determined by using a validated pain scoring system referred to as the Canine Brief Pain Inventory, or CBPI. The CBPI consists of ten questions administered to dog owners to evaluate the severity of their dog s pain and how much the pain interferes with the normal behavior of the dog. For each question, scores can range from zero to ten, with ten being the most severe. The CVM has reviewed the study protocol and concurred with the design. We launched the study in February 2013 and expect it to be completed in late 2013. Upon completion of the study, we will discuss with the CVM if and what further data will be required to complete the effectiveness requirements.

Chemistry, Manufacturing and Controls, or CMC. We have engaged a contract manufacturer for the API process development and a specialized animal health contract manufacturer as the contract laboratory to make the formulated product. Both API and formulated product are manufactured according to current Good Manufacturing Practices, or cGMP, standards. We are developing a process according to standards from the International Conference on Harmonization, or ICH, that can be used to supply both human and veterinary development and commercialization. We have selected a final formulation of AT-001, and produced clinical trial material. The API contract manufacturer has developed the chemical synthesis and process to a multi-kilogram batch size and is continuing to refine the process.

Table of Contents

Development Plan. Our plan is to complete our ongoing dose confirmation efficacy study, at which point we will be able to evaluate, together with the CVM, whether additional effectiveness data will be required to support our NADA. If more data are needed, we anticipate using the same concurred study design for an additional pivotal effectiveness trial. Concurrently, we continue to develop and refine our CMC data package. We plan to have the three major technical sections of the NADA for AT-001 complete by the end of 2015 and, assuming we achieve that goal and our submission is acceptable, we would expect NADA approval in 2016.

Our European regulatory strategy tracks that of the United States. We believe that data provided for our NADA filing in the United States should largely satisfy the EMA requirements. We are currently evaluating any gaps that may exist and expect to address those differences with human safety risk assessment, dose determination and expert opinion reports. We believe we could achieve EMA approval in 2017.

AT-001 in cats

Safety. We have conducted a number of laboratory probe studies to test the safety of AT-001 in cats. A 28-day safety study in 24 normal, healthy cats suggests that AT-001 is well tolerated at levels representing multiples of the potential therapeutic dose for up to 28 days. We also evaluated the safety of AT-001 in cats in post-operative settings. Under these conditions, we observed a dose-dependent increase of blood parameters related to liver metabolism, which is a signal of potential liver toxicity. Study results demonstrate that this observation is a combined effect of the medication used to produce general anesthesia and high AT-001 dosages. The study also showed that these effects were reversible and there were no abnormal clinical findings. While we cannot rely on any of these initial studies as pivotal safety studies, consistent with FDA requirements, we will include the results of these studies in our NADA as additional information.

Development plan. We continue to evaluate the potential safety margin and appropriate indication for the use of AT-001 in cats. Our next steps include additional safety studies in laboratory cats, outlining a development plan, including possible label claims for cats, and a meeting with the CVM to review this plan. We expect that the CMC process for AT-001 for cats will be similar to that for AT-001 for dogs.

AT-002

Overview

AT-002 (capromorelin) is a potent and selective ghrelin agonist, which causes appetite stimulation and growth hormone secretion. AT-002 was originally discovered by Pfizer and achieved proof of concept in Phase II clinical trials in humans. We in-licensed AT-002 from RaQualia, which is investigating the use of AT-002 in human medicine. We are developing AT-002 for the stimulation of appetite in cats and dogs. AT-002 is in the dose characterization and confirmation phase.

Medical need and market opportunity

The control of hunger and satiety involves a complex system in mammals. In many acute and chronic disease states, as well as with aging, lack of appetite is a problem and can fuel a downward spiral. Malnutrition and decreased muscle mass can result from inadequate food intake regardless of the underlying condition. In humans, doctors can rationalize with the patients the importance of maintaining nutrition despite the lack of natural appetite and there are medical therapeutics approved in humans to treat inappetence. Veterinarians and pet owners cannot successfully rationalize with pets about the importance of maintaining nutrition and there are no approved medical therapeutics to treat inappetence in pets. This can be a frustrating clinical situation for the veterinarian and pet owner and often contributes to the decision to euthanize a pet.

Fear, pain, stress, trauma, organic disease, dental disease, oral fractures and cancer are all possible causes of inappetence in pets. For example, in pets undergoing cancer treatment, the cancer therapy is commonly stopped when the pet loses appetite and body weight. According to the 2009 Cancer in Dogs and Cats report from Brakke Consulting, 2.1% of dogs in the United States will be diagnosed with cancer annually with 61% of diagnosed dogs

Table of Contents

receiving some form of treatment. Chemotherapy is the most common form of treatment and is used in 58% of the cases involving dogs. According to our market research, inappetence is seen in approximately 30% of dogs who receive chemotherapy. We believe that, if approved, AT-002 could be an important medicine in managing inappetence in cancer.

As a second example, inappetence commonly occurs in conjunction with chronic renal failure, or CRF. We estimate that 1.6% of cats in the United States have CRF and that 30% of cats with CRF experience inappetence during the course of their disease. Dietary therapy with a diet that is designed for cats and dogs with renal insufficiency is recommended regardless of the severity of disease. Unfortunately many of the therapeutic diets that are prescribed may be less palatable to pets than normal diets. We believe that, if approved, AT-002 could be an important medicine in managing inappetence that occurs in connection with CRF.

Currently available treatments and their limitations

The first goal of therapy for inappetence is to correct the underlying cause. Often veterinarians will begin treatment of inappetence by recommending a change to a highly palatable diet such as tuna for cats and chicken or beef for dogs. Depending on the severity of the condition, the animal may be supported with fluids and electrolytes until the diagnosis of the underlying condition is made and effective treatment is initiated where possible. Prolonged or severe inappetence may require hospitalization and feeding tube placement. There are no drugs approved for the treatment of inappetence in cats and dogs. Drug therapy to address inappetence has focused on human drugs affecting the central nervous system control of feeding such as benzodiazepines, cyproheptadine and mirtazapine. However, these drugs are not approved for veterinary use, have limited effectiveness and are contraindicated for cats with hepatic lipodosis. As a result, we believe there is a significant market opportunity for a therapeutic product that is safe and can effectively stimulate appetite in pets.

Our solution AT-002

AT-002 is a potent and selective ghrelin agonist. Ghrelin is a 28-amino acid peptide hormone, also referred to as the hunger hormone, produced predominantly in the stomach. It is the endogenous ligand of the ghrelin receptor, also known as growth hormone secretagogue receptor, or GHS-R. By activation of the ghrelin receptor, ghrelin stimulates appetite and growth hormone secretion, and also exhibits a role in regulation of gastrointestinal motility and energy balance. As depicted in the figure below, ghrelin binds to specific receptors and affects signaling in the hypothalamus, interacting with other hormones to cause the feeling of hunger and stimulate food intake. In addition to its effects on appetite, ghrelin stimulates growth hormone secretion by activation of GHS-Rs in the pituitary. This effect acts to build lean body mass, which has been shown to result in increased strength in frail, elderly people.

Table of Contents

AT-002 is a small molecule that mimics ghrelin and binds to the GHS-R. The appetite stimulation and GH-releasing activity of AT-002 has been demonstrated in laboratory cats and dogs where AT-002 treatment results in increased food intake and weight gain. Similarly, chronic oral dosing of AT-002 in dog GLP toxicology study stimulated appetite, weight gain and caused increased plasma growth hormone levels.

The initial human development focus for AT-002 at Pfizer was on frailty, congestive heart failure and fibromyalgia. More than 1,200 human subjects have participated in Phase I and Phase II clinical trials involving AT-002 and the drug was shown to be generally safe in humans. Two of the commonly reported adverse events in humans were increased appetite and weight gain, which we believe support our intended development for inappetence in pets.

AT-002 in dogs

Safety. In the toxicology program that was conducted to support the filing of an investigational new drug application, or IND, for human drug development, a series of studies investigated the effects of oral once daily administration of the compound to male and female dogs. We intend to use the results from a dog GLP 12-month toxicology study as the pivotal safety data to be submitted to the regulatory authorities to demonstrate safety in dogs. In the study, AT-002 was administered orally once daily at doses from 0 to 40 mg/kg for 12 consecutive months. A total of 32 dogs were evaluated in four dose groups, with each dose group consisting of four male and four female dogs. All animals were observed daily for clinical signs and received periodic ophthalmology examinations, physical examinations, including vital signs and blood pressure monitoring, electrocardiograms and clinical pathology evaluations. At the end of the dosing period, dogs were necropsied and further examined. Clinical signs related to the administration of AT-002 were limited to salivation in the high dose groups and loose stool seen sporadically at all dose levels including the controls. Occasional episodes of vomiting were observed throughout the study, but were considered unrelated to treatment. Ataxia, or lack of muscle coordination, was observed on one occasion in one intermediate dose dog. One dog died during the dosing period as a result of accidental delivery of drug into the respiratory tract. There were no treatment-related effects noted on ophthalmology and physical examination. Electrocardiogram changes were observed in the high and intermediate dose groups one to two hours following dosing. Hematology and urinalysis results were considered to be within normal range and unaffected by treatment with AT-002. Serum alkaline phosphatase was increased in the high dose treatment group. Other treatment-related changes within the high dose AT-002 group included increased cholesterol and HDL associated with accelerated lipolysis. All other serum chemistry results were either within normal ranges or lacked any consistent dose/time relationship. Necropsy results revealed no treatment related macroscopic findings and no histological lesions were observed in the heart. Treatment-related adverse events observed at the highest doses were limited to the gastrointestinal, cardiovascular and hepatic systems. Based on this study, we believe that AT-002 could be well tolerated in dogs and, depending on the final approved dose, could demonstrate an up to 10x safety margin.

In addition to the results from this 12-month study, our data safety package will include a pharmacokinetic study that bridges the formulation used in this toxicity study to the final commercial formulation.

Effectiveness. Several laboratory studies in healthy dogs with various daily oral doses of AT-002 for four to ten days were completed prior to our licensing AT-002. These studies demonstrated increased food intake and weight gain. We conducted a seven-day, placebo controlled, blinded dosing study in dogs to confirm these results, and confirmed that treated dogs showed a sustained increase in appetite and body weight over the treatment period, with the placebo control treated dogs losing weight, likely due to intensive handling and blood sampling.

Table of Contents

We evaluated the effectiveness of AT-002 compared to placebo for the treatment of inappetence in a pilot placebo-controlled, blinded, multi-veterinary clinic field study in client-owned patients. The study was designed to evaluate the effectiveness of the drug in client-owned dogs, as opposed to laboratory animals, to test the acceptance of the formulation, ease of dosing and appetite assessments by owners, and to define the patient population. Effectiveness parameters include owner assessment of appetite and body weight gain compared to baseline and compared to the dog s best lifetime condition. Dogs were treated once daily for seven days. The results of 30 evaluable cases are shown in the table below. Compared to the placebo control animals, the appetite score and body weight of the AT-002 treated patients were statistically significantly increased on day 6 after 7 daily treatments. The results compared to best lifetime condition showed a positive trend towards the AT-002 treatment, but were not statistically significant.

Group	**Appetite Score on Day 6**		**Body Weight on Day 6**	
	% Change mean/SEM	p-value	*% Change mean/SEM*	p-value
AT-002 (n=17)	79 / 19	< 0.05	3.3 / 1.2	< 0.05
Placebo (n=13)	20 / 12		-0.2 / 0.9	

p-value £0.05 indicates statistical significance on a 95% or higher confidence level

CMC. When we licensed the drug, the chemical process was scaled up to kilogram quantities but was not optimized. Our contract manufacturer for the API process development is developing a process according to ICH standards that can be used to supply both human and veterinary development and commercialization. We have successfully completed process development of AT-002, with three cGMP batches manufactured and API shipped for manufacture of clinical trial material. As with AT-001, we are using an animal health specialty contract manufacturer to develop the formulation according to CVM and EMA standards. The manufacture and release of the first cGMP batch of formulated product that will be used as clinical trial material is expected in mid-2013.

Development plan. We have presented a detailed development plan for AT-002 in dogs to the CVM and achieved general agreements on the data requirement for the NADA. Our development plan includes the submission of the 12-month dog GLP toxicology data, together with the pharmacokinetic bridging study, to satisfy the required pivotal safety data. The pivotal field effectiveness study protocol will be submitted to the CVM for concurrence, and we expect to commence the pivotal field effectiveness study in the second half of 2013. Concurrently, we continue to develop our CMC data package and plan to have a pre-submission meeting with the CVM to discuss CMC in mid-2013. We plan to have all three major technical sections of the NADA completed in time to receive NADA approval near the end of 2015 or in early 2016.

Our European regulatory strategy tracks that of the United States. We believe that data provided for our NADA filing in the U.S. should largely satisfy the EMA requirements. We are currently evaluating any gaps that may exist and expect to address those differences with human safety risk assessment, dose determination and expert opinion reports. We do not expect to receive EMA approval of AT-002 until 2017 or 2018.

AT-002 in cats

Safety. When we licensed AT-002, included in the data was a two-week safety study in cats. Because we expect the potential patient population for AT-002 to include elderly cats suffering from chronic renal failure, we tested the safety of AT-002 in a model of kidney compromised laboratory cats. The results from the two-week study in normal cats suggested that AT-002 was well tolerated. The results from our safety study in kidney compromised cats also demonstrated no treatment related side effects. Based on these studies, we believe we have demonstrated that AT-002 has a favorable safety profile in cats and expect that sufficient safety margins will be seen in the pivotal safety study.

Table of Contents

Effectiveness. Several laboratory studies in healthy cats using various daily AT-002 oral doses were also included in the data package at licensing. Food intake and weight gain were increased after administration of AT-002 to cats. We confirmed these results by conducting a 10-day laboratory study in cats, the results of which demonstrated the desired physiological hormone effects from AT-002 treatment.

We are currently conducting a dose confirmation study to determine the appropriate dose and study design for our pivotal field effectiveness field study. The study design is similar to that of the pilot study for AT-002 in dogs and was designed to evaluate the effectiveness of the drug in client-owned cats, as opposed to laboratory animals, to test the acceptance of the formulation, ease of dosing and appetite assessments by owners, and to define the patient population. We expect cat owners will have increased difficulty in assessing appetite in cats and therefore we plan to continuously monitor this study and may adapt the study design or other study parameters. The study began in January 2013 and enrollment is ongoing. We expect to report the results from this study in mid-2013 with additional study results, if conducted, to be reported by the end of 2013.

CMC. We expect CMC for AT-002 for cats to follow a similar process to that described above for AT-002 for dogs.

Development plan. We are preparing our detailed development plan for AT-002 in cats and intend to present that plan to the CVM in the second half of 2013, when we expect to agree on the pivotal data that will be required for the NADA. To fulfill the safety requirements, our development plan includes a standard safety study in cats according to CVM guidelines. We plan to continue the ongoing study in client-owned cats and will use the results of that study to design the required pivotal field effectiveness study. We expect to submit the pivotal field effectiveness study protocol to the CVM for concurrence. Concurrently, we continue to develop our CMC data package and plan to have a pre-submission meeting with the CVM to discuss CMC at the appropriate time. We plan to have all three major technical sections of the NADA completed by the beginning of 2016, followed by an anticipated NADA approval within a year.

AT-003

Overview

AT-003 is a bupivacaine liposome injectable suspension that we in-licensed from Pacira. The product was approved for use in humans as a local, post-operative analgesic by the FDA in October 2011 and is marketed by Pacira under the name EXPAREL for use in controlling post-operative surgical wound pain following various types of surgical procedures. We intend to develop AT-003 as a therapeutic to manage post-operative pain in cats and dogs following surgery. We expect to use the same product in both species.

Medical need and market opportunity

Veterinarians perform approximately 19 million dog surgeries and 14 million cat surgeries each year. Approximately 50% of dog surgeries and 58% of cat surgeries, respectively, are spays and neuters, while other common surgeries include cancer surgery, declaw, cruciate repairs and fracture repairs. There is no established protocol for the use of pain medications in these surgeries and pain management practices have traditionally been based on the veterinarian s views on the level of pain associated with a specific surgical procedure and the perceived pain tolerance of the pets. Recently, as pet owners have begun requesting analgesia for their pets painful conditions, veterinarians have made advances in treating pain in pets. Furthermore, animal research demonstrates that pain can have a detrimental effect on healing, and pain experts in academia and specialty clinics are advocating more use of local anesthesia for pain control.

Currently available treatments and their limitations

The only drugs approved for treatment of post-operative pain in cats and dogs are Coxib NSAIDs and fentanyl. In surgeries associated with the most severe post-operative pain, fentanyl is commonly used. Fentanyl is a controlled narcotic drug, and pets are often kept in the hospital while receiving fentanyl. In our experience, the majority of fentanyl is dispensed as fentanyl patches, although such use in pets has not been approved. In 2012, Nexcyon

Table of Contents

received FDA approval for a transdermal fentanyl solution, but its use in this format has not been widely established because the product has not been launched in the United States. We believe that there are unmet needs in pets receiving these more painful surgeries, especially if effective and extended pain relief could be achieved with a non-narcotic medicine. The same group of NSAIDs approved to treat the pain and inflammation associated with osteoarthritis in dogs are used for post-operative pain. Some of these drugs can be given in the veterinary hospital as an injection, and then dispensed to the owner for a few days of treatment at home. For cats, only two NSAIDs are approved by the CVM for use in post-operative pain. These are Onsior, which is given orally and is approved for no more than three days of use, and Metacam, which is approved for one injectable dose only.

Among the drugs used for post-operative pain, some have been approved by the CVM, while others are used off label. The most commonly used post-operative pain medication in dogs is Rimadyl, which has been approved by the CVM for this use. The most common product for post-operative pain in cats is buprenorphine; however, this drug is not CVM-approved for this use. As previously described in our discussion regarding AT-001 for dogs, NSAIDs have demonstrated significant side effects that result in prescribed monitoring of dog health during their use. For example, some dogs have an idiosyncratic sensitivity that results in hepatic toxicity and, in extreme cases, death. Consequently, we believe veterinarians would appreciate a drug for post-operative use that was effective, but also safer on the liver, gastrointestinal system and kidneys.

Our solution AT-003

AT-003 is a 1.3% bupivacaine liposome injectable suspension. It consists of microscopic, spherical multivesicular liposomes, which is Pacira s proprietary DepoFoam drug delivery system. Bupivacaine is released from the DepoFoam particles by mechanisms involving reorganization of the barrier lipid membranes and subsequent diffusion of the drug occurs over an extended period of time. The formulation has been shown to extend the duration of human post-operative analgesia from approximately six to eight hours, to as long as 72 hours in some instances, which can eliminate the need for follow-on post-operative administration of other pain drugs. Additionally, the slower uptake of the bupivacaine into the systemic circulation helps avoid high plasma concentration and presumably lowers the risk of systemic toxicity.

Bupivacaine is a local anesthetic that prevents the generation and conduction of nerve impulses, apparently by increasing the threshold for electrical excitation in the nerve, by slowing the propagation of the nerve impulse, and by reducing the rate of rise in the action potential. Bupivacaine has a history of use in the United States of more than 30 years and its pharmacology, pharmacodynamics and toxicology in laboratory animals and humans are well understood. Bupivacaine is widely used by veterinary surgeons.

Human clinical results from AT-003 human development program

EXPAREL has demonstrated efficacy and safety in two multicenter, randomized, double-blind, placebo-controlled, pivotal Phase III clinical trials in humans undergoing soft tissue surgery and orthopedic surgery. Both trials met their primary efficacy endpoints in demonstrating statistically significant analgesia through 72 hours for the tissue surgery trial and 24 hours for the orthopedic surgery trial. Both trials also met multiple secondary endpoints, including decreased opioid use and delayed time to first opioid use. These two pivotal Phase III clinical trials formed the basis of the evidence for efficacy in the FDA-approved NDA for EXPAREL.

The safety of EXPAREL has been demonstrated in 21 clinical trials in humans consisting of nine Phase I clinical trials, seven Phase II clinical trials and five Phase III clinical trials. EXPAREL was administered to over 1,300 human patients at doses ranging from 10 mg to 750 mg administered by local infiltration into the surgical wound and by subcutaneous, perineural, epidural and intraarticular administration. In all 21 clinical trials, EXPAREL was well-tolerated.

AT-003 in cats and dogs

Safety. Pacira conducted an extensive toxicology program to support human drug development. Both the liposome formulation alone and the bupivacaine formulated product underwent extensive *in vitro* and *in vivo* safety testing, which included numerous studies performed in laboratory dogs. As a result, we have seven studies that we plan to use to support approval for AT-003 in dogs.

Table of Contents

We believe our pivotal dog safety study for AT-003 is the subcutaneous toxicity study with twice-weekly dosing for four weeks in dogs that was conducted as part of the human development program. The study was conducted to evaluate potential local and systemic toxicity of twice-weekly subcutaneous dosing for four weeks. Also, the reversibility, progression or delayed appearance of any observed changes were evaluated in a four-week post-dose observation period.

A total of 60 dogs were allotted to five groups of six male and six female dogs. Three groups were treated twice weekly with EXPAREL at different dose levels, one group with bupivacaine HCl injection, also known as Sensorcaine, and one group with normal saline. After the four-week dosing period, three male and three female dogs per group were maintained for a 28-day recovery period.

All animals were observed daily for clinical signs. Clinical examinations and body weight measurements were performed weekly. Electrocardiograms, hematology, serum chemistry and urinalyses were monitored periodically. At the end of terminal and recovery periods, necropsy examinations were performed, organ weights were recorded and selected tissues were microscopically examined.

The only EXPAREL effects were associated with the injection sites in dogs. This effect was considered an expected response to the liposomes in EXPAREL and non-adverse because of the low incidence and severity observed in these dogs.

Effectiveness. To date we have not obtained any effectiveness data for the use of AT-003 in cats or dogs, although short-acting bupivacaine has been used extensively for short-term treatment of post-operative pain by veterinarians in cats and dogs. Given the proven clinical effectiveness of EXPAREL in humans, we expect AT-003 will demonstrate extended post-operative analgesia in cats and dogs.

CMC. We intend to use the same product that was approved by the FDA for the AT-003 development program and expect to receive a CMC technical section complete letter based on the same data that was submitted to the FDA for the NDA of EXPAREL. We plan to submit a full CMC package to the CVM and expect they will perform a full review.

Development plan. We have established an investigational new animal drug, or INAD, file with the CVM. We plan to schedule a pre-development plan meeting with the CVM to present and discuss an outline of our proposed development activities including presentation to the CVM and agreement on the CMC submission plans. We will also discuss the safety data to be submitted in support of the dog approval and will submit pivotal protocol for a standard target animal safety study in cats. We plan to initiate dose confirmation studies in both cats and dogs late in 2013. After a dose regimen has been established, we will submit to the CVM pivotal study protocols to demonstrate effectiveness in cats and dogs. We anticipate filing our NADA for both cats and dogs in 2015 and, assuming we achieve that goal and our submission is acceptable, we could expect NADA approval in 2016 or 2017. We believe EMA approval would follow a year later.

Sales and Marketing

If approved by the regulatory agencies, we intend to commercialize our products. Additionally, we intend to seek opportunities to partner with companies where we can provide commercialization for their approved, or close to approved, pet therapeutic products.

To prepare for the launch of AT-001, AT-002 and AT-003 in the United States, we have begun pre-launch marketing activities. Our marketing team is working closely with our development team on the key differentiating features and benefits of our compounds. We are focusing on labeling, pet-friendly formulations and user-friendly packaging to meet the needs of veterinarians and pet owners. We are establishing trademarks for the products and will conduct primary market research with key opinion leaders, veterinarians and pet owners to establish the optimal product positioning and pricing. As clinical data becomes available, we will prepare peer-reviewed journal articles

and presentations that can be delivered at veterinary conferences and will become key elements of our promotional materials at launch.

To prepare the U.S. veterinary market for the introduction of our sales force and our brands, we will continue brand development activities, such as corporate identity, websites and sponsorships. We plan to make product branding the foundation of our advertising and promotional strategies targeted at veterinarians and pet owners.

As we approach approval of our first product candidate, we will begin preparing the plan for commercial launch, including sales force staffing and compensation plans, distributor agreements, veterinarian and pet owner segmentation and targeting, and customer profiling.

As part of our commercial strategy, we intend to employ a direct sales organization to market our products in the United States. Our direct sales organization will sell products directly to veterinarians, who in turn typically sell pet therapeutics products to pet owners at a mark-up. According to industry sources, approximately one-third of companion animal practice revenue comes from prescription drug sales, vaccinations and non-prescription medicines. In light of the veterinarian s goal of improving the health of pets and the ability to generate revenue from the sale of therapeutic products, we believe veterinarians are motivated to prescribe innovative therapeutics that are safe, effective and supported by reliable clinical data and regulatory approval.

In addition to a direct sales organization, we believe that we can use distributors to expand our commercial reach in an efficient manner. Animal health companies commonly use wholesale veterinary distributors to inventory, sell, bill and ship products to independent veterinarians. We estimate that the top three national distributors are responsible for approximately 70% of U.S. pet sales from veterinarians. Each of these distributor organizations has a sales team of approximately 275 field sales representatives, 175 telesales representatives and a dozen distribution centers geographically placed throughout the United States so that they can rapidly deliver product to the practices. We intend to strategically balance our direct sales organization with national and regional distributors in a manner that optimizes our commercial efforts and allows us to provide coverage to a more expansive group of veterinary practices while growing our direct sales organization incrementally.

Manufacturing

We have no internal manufacturing capabilities. To ensure dependable and high quality supply of API for our clinical studies, we have chosen to rely on cGMP compliant contract manufacturers rather than devote capital and manpower toward developing or acquiring internal manufacturing facilities. We believe we have sufficient supply of formulated drug to conduct each of our currently contemplated studies. We will need to identify contract manufacturers to provide commercial supplies of the formulated drugs for AT-001 and AT-002. We intend to secure contract manufacturers with established track records of quality product supply and significant experience with regulatory requirements of both CVM and EMA. For AT-003, we have entered into a commercial supply agreement with Pacira.

Exclusive Supply Agreement with Pacira

In December 2012, we entered into an exclusive license agreement and related exclusive supply agreement with Pacira. Under the supply agreement, Pacira is our exclusive supplier of AT-003 and will supply us with finished drug product in vials. We are responsible for the labeling, packaging and shipping of the product. We must submit a rolling forecasts to Pacira, with a portion of each forecast constituting a binding commitment. The term of the supply agreement extends for as long as the license agreement with Pacira continues in force. The license agreement has a term of fifteen years, until December 5, 2027, after which we have the option to renew the term for an additional five years. Pacira may terminate the supply agreement if we fail to make an undisputed payment, if we breach a material provision of the agreement, or if Pacira ceases manufacture of the product. Pacira also has the unilateral right to change its manufacturing process for the product. In this case, if we cannot reach agreement on the terms of continued supply of AT-003 meeting current specifications and Pacira decides that it is no longer commercially reasonable to supply us with product meeting such specifications, then Pacira may terminate the supply agreement.

Table of Contents

API Development Agreement with RaQualia

In July 2012, we entered into an API development agreement with RaQualia pursuant to which we agreed to develop a manufacturing process for AT-001 that is cGMP compliant. We intend to fulfill this obligation through a contract manufacturer, Cambridge Major Laboratories, Inc., or CML, whom we engaged in August 2011 to develop the manufacturing process for AT-001. CML is developing the API process according to ICH standards that can be used to supply both human and veterinary development and commercialization. Once we have completed development of such manufacturing process, we must supply to RaQualia a defined amount of AT-001 and non-exclusively license to RaQualia certain technical information relating to the manufacture of AT-001 for research, development and regulatory purposes and for the manufacture and commercialization of pharmaceuticals incorporating AT-001 for human use only, subject to certain restrictions. We must also negotiate in good faith a supply agreement to govern any further supply of AT-001 to RaQualia. RaQualia paid us $0.8 million upon the execution of the agreement and is required to pay us an additional $0.8 million upon delivery of a certain quantity of AT-001 that is compliant with law, meets mutually-agreed specifications, and is suitable for use in human clinical trials. Assuming we satisfy our obligations under the agreement, we expect to receive payments of $1.6 million. This agreement will remain in effect until we have received approval from the FDA of the CMC technical section of our NADA for AT-001. Either we or RaQualia can terminate the agreement if the other party breaches a material provision of the agreement or becomes insolvent, if our exclusive license agreement with RaQualia for AT-001 terminates or expires, or if any FDA action prevents us from developing and supplying AT-001 as specified under the agreement and we and RaQualia cannot agree on a response to such FDA action.

Competition

The development and commercialization of new animal health medicines is highly competitive, and we expect considerable competition from major pharmaceutical, biotechnology and specialty animal health medicines companies. As a result, there are, and likely will continue to be, extensive research and substantial financial resources invested in the discovery and development of new animal health medicines. Our potential competitors include large animal health companies, such as Merck Animal Health, the animal health division of Merck & Co., Inc.; Merial, the animal health division of Sanofi S.A.; Elanco, the animal health division of Eli Lilly and Company; Bayer Animal Health, the animal health division of Bayer AG; Novartis Animal Health, the animal health division of Novartis AG; Boehringer Ingelheim Animal Health, the animal health division of Boehringer Ingelheim GmbH; and Zoetis, Inc. We will also compete against several animal health companies in Europe, such as the Virbac Group, Ceva Animal Health and Dechra Pharmaceuticals PLC. We are also aware of several smaller early stage companies that are developing products for use in the pet therapeutics market.

At the product level, we will face competition for AT-001 from Rimadyl, marketed by Zoetis, Deramaxx, marketed by Novartis, Previcox, marketed by Merial, and Metacam, marketed by Boehringer Ingelheim. We are not aware of any direct competitor for AT-002. We expect AT-003 will compete primarily with the Coxibs and injectable anesthetics, such as bupivacaine, which is not approved for non-human use but is widely used by veterinarians. Although not launched, Recuvyra fentanyl transdermal solution received approval in the United States and Europe for control of post-operative pain from surgical procedures in dogs.

We are an early-stage company with a limited history of operations and many of our competitors have substantially more resources than we do, including both financial and technical resources. In addition, many of our competitors have more experience than we have in the development, manufacture, regulation and worldwide commercialization of animal health medicines. We are also competing with academic institutions, governmental agencies and private organizations that are conducting research in the field of animal health medicines.

Our competition will be determined in part by the potential indications for which our products are developed and ultimately approved by regulatory authorities. Additionally, the timing of market introduction of some of our potential products or of competitors products may be an important competitive factor. Accordingly, the speed with which we can develop our compounds, complete target animal studies and approval processes, and supply commercial quantities to market are expected to be important competitive factors. We expect that competition

Table of Contents

among products approved for sale will be based on various factors, including product efficacy, safety, reliability, availability, price and patent position.

Intellectual Property and License Agreements

We seek to protect our products and technologies through a combination of patents, regulatory exclusivity, and proprietary know-how. Our goal is to obtain, maintain and enforce patent protection for our products, formulations, processes, methods and other proprietary technologies, preserve our trade secrets, and operate without infringing on the proprietary rights of other parties, both in the United States and in other countries. Our policy is to actively seek to obtain, where appropriate, the broadest intellectual property protection possible for our current compounds and any future compounds for development, proprietary information and proprietary technology through a combination of contractual arrangements and patents, both in the United States and abroad. However, even patent protection may not always afford us with complete protection against competitors who seek to circumvent our patents. See Risk Factors Risks Related to Intellectual Property.

We depend upon the skills, knowledge and experience of our scientific and technical personnel, as well as that of our advisors, consultants and other contractors, none of which is patentable. To help protect our proprietary know-how, which is not patentable, and inventions for which patents may be difficult to obtain or enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. To this end, we require all of our employees, consultants, advisors and other contractors to enter into confidentiality agreements that prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business.

Exclusive License Agreements with RaQualia

In December 2010, we entered into two agreements with RaQualia pursuant to which we exclusively licensed intellectual property rights relating to AT-001 and AT-002 in the animal health field. Pursuant to these agreements we obtained the rights to 14 granted U.S. patents, as well as foreign counterparts in Canada, Europe (Great Britain, Ireland, Spain, France, Germany and Italy), India, Japan, South Korea, Mexico and Russia and other patent applications and patents claiming priority therefrom. The patents relating to AT-001 include composition of matter claims as well as claims to methods of treating various conditions including pain, inflammation, osteoarthritis and rheumatoid arthritis. The patents relating to AT-001 further include methods of preparing the compounds of interest and salts, polymorphs and intermediates thereof, as well as certain combination therapies. The patents relating to AT-002 include composition of matter claims as well as claims to methods of promoting release of endogenous growth hormone and methods of treating inappetence. Under these agreements, we were granted exclusive, worldwide licenses to develop, manufacture and commercialize AT-001 and AT-002 in the field of animal health, except that we cannot develop, manufacture or commercialize injectable AT-001 products in Japan, South Korea, China or Taiwan. We have the right to grant sublicenses to third parties under these agreements. We are responsible for using commercially reasonable efforts to develop and commercialize AT-001 and AT-002. The key patent that we believe covers the crystalline form of the AT-001 compound expires on February 21, 2027, and the key patent that we believe covers certain methods of producing the AT-002 compound expires on February 1, 2020. Each of these patents may be eligible for an award of up to 5 years of patent term extension upon FDA approval of a commercial use of the corresponding product. The remainder of the patents licensed under these agreements are expected to terminate between 2013 and 2031.

We paid RaQualia upfront license fees under each of the AT-001 and AT-002 agreements of $3.0 million and $4.4 million, respectively. We are also responsible for contingent milestone payments upon achievement of development and regulatory milestones and royalties on net sales of licensed products, subject to certain potential offsets and deductions, under each of the AT-001 and AT-002 agreements. The potential milestone payments associated with AT-001 total $10.0 million, and the royalty percentage is in the mid-single digits. The potential milestone payments associated with AT-002 total $8.5 million, and the royalty percentage is in the mid-single digits. We must also pay to RaQualia a portion of royalties we receive from any sublicensees, subject to a minimum royalty on net sales by such sublicensees. Our royalty obligations apply on a country-by-country and licensed product-by-licensed product basis, and end upon the expiration or abandonment of all patents with valid claims covering a licensed product in a given country.

Table of Contents

Each of the AT-001 and AT-002 agreements continues until terminated. RaQualia may terminate the AT-001 agreement or the AT-002 agreement if we fail to pay any undisputed fee under the relevant agreement and do not cure such failure within 60 days after RaQualia notifies us of such failure. We may terminate the AT-001 agreement or the AT-002 agreement, or any license granted under either agreement, on a patent-by-patent and country-by-country basis at will, upon 30 days prior written notice to RaQualia. Once all of the patents licensed under the AT-001 agreement or the AT-002 agreement have expired or been abandoned, the licenses granted under the relevant agreement become fully-paid and irrevocable.

Exclusive License Agreement with Pacira

In December 2012, we entered into an exclusive license agreement and related exclusive supply agreement with Pacira Pharmaceuticals, Inc., or Pacira. Under the license agreement, we were granted an exclusive, worldwide license to develop and commercialize, but not to manufacture, AT-003 in the veterinary field. We were not granted the right to enforce patents licensed with respect to AT-003 against any third-party infringement, although we have certain limited rights to request that Pacira enforce such patents against infringement. Pursuant to this agreement we obtained the rights to 8 granted U.S. patents and 5 pending U.S. patent applications, as well as foreign counterparts in Australia, Canada, Europe (Austria, Germany, Denmark, Spain, France and Portugal), Hong Kong, Norway, New Zealand, Israel, Japan and Mexico and other patent applications and patents claiming priority therefrom. The patents relating to AT-003 include composition of matter claims directed to liposomes, methods of preparing such liposomes, reagents for use in such methods and methods of treating post-operative or post-trauma pain. Patents relating to AT-003 further claim compositions and methods of preparation of sustained and/or controlled release liposomes. The patents relating to AT-003 are expected to expire between 2013 and 2031.

We have the right to grant sublicenses to third parties outside the United States upon Pacira s approval. Any sublicenses we wish to grant to third parties within the United States must be discussed with Pacira and approved by Pacira in its sole discretion and good faith reasonable business judgment. We are responsible for using commercially reasonable efforts to develop and commercialize AT-003, and for launching AT-003 within a specified time period following regulatory approval in certain countries.

We paid Pacira an upfront fee and are responsible for contingent milestone payments upon the achievement of certain development and commercial milestones and for royalties on net sales of AT-003 by us and our affiliates. The total upfront license fees and potential milestone payments associated with AT-003 are $43.5 million, with a tiered royalty percentage in the low- to mid-20 s. We must pay Pacira a royalty on net sales of AT-003 by us and our affiliates, subject to certain reductions. We must also pay to Pacira a percentage of all payments we receive from any sublicensee, subject to certain offsets, and under certain circumstances, share a portion of Pacira s royalty payment obligations to its third-party licensors. We are responsible for meeting minimum annual revenue requirements for AT-003 beginning the fifth year after the first commercial sale of AT-003. If we fail to meet these requirements, either we or Pacira may terminate the license agreement.

The term of the license agreement extends for 15 years, until December 5, 2027, after which we have the option to renew the term for an additional five years. Pacira may terminate the agreement in its entirety if we fail to pay any amount due within a specified time period, or on a country-by-country basis if we fail to achieve regulatory approval of AT-003 in the United States or the European Union or fail to dose our first subject in any other countries by a certain date. Pacira may also terminate the agreement on a country-by-country basis if we fail to achieve first commercial sale within a specified time period following receipt of regulatory approval in such country. We may terminate the agreement on a country-by-country basis either upon the entry of a generic competitor, or at will outside the United States or the European Union. Either we or Pacira may terminate the agreement if the other party materially breaches or files for bankruptcy and fails to cure such breach within a specified time period, or if we do not pay the minimum annual revenue requirements referenced above. The agreement automatically terminates if Pacira terminates the related supply agreement and if certain circumstances involving a U.S. sublicensee occur and we do not meet certain financial obligations to Pacira.

Table of Contents

Regulatory

The development, approval and sale of animal health products are governed by the laws and regulations of each country in which we intend to sell our products. To comply with these regulatory requirements, we have established processes and resources to provide oversight of the development and launch of our products and their maintenance in the market.

United States

Three federal regulatory agencies regulate the health aspects of animal health products in the United States: the FDA; the United States Department of Agriculture, or the USDA; and the Environmental Protection Agency, or the EPA.

The CVM at the FDA regulates animal pharmaceuticals under the Food, Drug and Cosmetics Act. The USDA Center for Veterinary Biologics regulates veterinary vaccines and some biologics pursuant to the Virus, Serum, Toxin Act. The EPA regulates veterinary pesticides under the Federal Insecticide, Fungicide and Rodenticide Act. Many topical products used for treatment of flea and tick infestations are regulated by the EPA.

All of our current product candidates are animal pharmaceuticals regulated by the CVM. Manufacturers of animal health pharmaceuticals, including us, must show their products to be safe, effective and produced by a consistent method of manufacture. The CVM s basis for approving a drug application is documented in a Freedom of Information Summary. We will be required to conduct post-approval monitoring of products and to submit reports of product quality defects, adverse events or unexpected results to the CVM s Surveillance and Compliance group.

European Union

The European Medicines Agency, or the EMA, regulates the scientific evaluation of medicines developed by pharmaceutical companies for use in the European Union, or the EU. Its veterinary review section is distinct from the review section for human drugs. The Committee for Medicinal Products for Veterinary Use, or CVMP, is responsible for scientific review of the submissions for animal pharmaceuticals and vaccines but the EMA makes the final decision on the approval of products. Once a centralized marketing authorization is granted by the EMA, it is valid in all EU and European Economic Area-European Free Trade Association states. In general, the requirements for regulatory approval of an animal health product in the EU are similar to those in the United States, requiring demonstrated evidence of purity, safety, efficacy and consistency of manufacturing processes.

Rest of World

Each other country has its own regulatory requirements for approving and marketing veterinary pharmaceuticals. For example, in Brazil, the Ministry of Agriculture, Livestock Products and Supply, or MAPA, is responsible for the regulation and control of pharmaceuticals, biologicals and feed additives for animal use. MAPA s regulatory activities are conducted through the Secretary of Agricultural Defense and its Livestock Products Inspection Department. In addition, regulatory activities are conducted at a local level through the Federal Agriculture Superintendence. These activities include the inspection and licensing of both manufacturing and commercial establishments for veterinary products, as well as the submission, review and approval of pharmaceuticals, biological and feed additives.

In Australia, the Australian Pesticides and Veterinary Medicines Authority, or APVMA, is the Australian government statutory authority for the registration of all agricultural and veterinary products. The APVMA assesses applications from manufacturers of veterinary pharmaceuticals and related products.

Many country specific regulatory laws contain provisions that include requirements for labeling, safety, efficacy and manufacturers quality control procedures to assure the consistency of the products, as well as company records

Table of Contents

and reports. With the exception of the EU, the regulatory agencies of most other countries generally refer to the FDA, USDA, EMA, and other international animal health entities, including the World Organisation for Animal Health and the Codex Alimentarius Commission, in establishing standards and regulations for veterinary pharmaceuticals and vaccines.

Other Regulatory Considerations

Regulatory rules relating to human food safety, food additives, or drug residues in food will not apply to the products we currently are developing because our products are not intended for use in food animals or food production animals.

Advertising and promotion of animal health products is controlled by regulations in many countries. These rules generally restrict advertising and promotion to those claims and uses that have been reviewed and endorsed by the applicable agency. We will conduct a review of advertising and promotional material for compliance with the local and regional requirements in the markets where we sell pet therapeutics.

Requirements for Approval of Veterinary Pharmaceuticals for Pets

As a condition to regulatory approval for sale of animal products, regulatory agencies worldwide require that a product to be used for pets be demonstrated to:

- be safe for the intended use in the intended species;
- have substantial evidence of effectiveness for the intended use;
- have a defined manufacturing process that ensures that the product can be made with high quality consistency; and
- be safe for humans handling the product and for the environment.

Safety. To determine that a new veterinary drug is safe for use, regulatory bodies will require us to provide data from a safety study generated in laboratory cats and dogs tested at doses higher than the intended label dose, over a period of time determined by the intended length of dosing of the product. In the case of the CVM, the design and review of the safety study and the study protocol are completed prior to initiation of the study to help assure that the data generated will meet FDA requirements. These studies are conducted under rigorous quality control, including GLP, to assure integrity of the data. They are designed to clearly define a safety margin, identify any potential safety concerns, and establish a safe dose for the product. This dose and effectiveness is then evaluated in the pivotal field effectiveness study where the product is studied in the animal patient population in which the product is intended to be used. Field safety data, obtained in a variety of breeds and animals kept under various conditions, are evaluated to assure that the product will be safe in the target population. Safety studies are governed by regulations and regulatory pronouncements that provide the parameters of required safety studies and are utilized by regulatory bodies in the United States, the European Union and Japan.

Effectiveness. Early pilot studies may be done in laboratory cats or dogs to establish effectiveness and the dose range for each product. Data on how well the drug is absorbed when dosed by different routes and the relationship of the dose to the effectiveness are studied. When an effective dose is established, a study protocol to test the product in real world conditions is developed prior to beginning the study. In the case of the CVM, the pivotal effectiveness field study protocol is submitted for review and concurrence prior to study initiation, to help assure that the data generated will meet requirements.

The pivotal field effectiveness study must be conducted with the formulation of the product that is intended to be commercialized, and is a multi-site, randomized, controlled study, generally with a placebo control. To reduce bias in the study, individuals doing the assessment are not told whether the subject is in the group receiving the treatment being tested or the placebo group. In both the United States and the European Union, the number of patients enrolled in the pivotal field effectiveness studies is required to be approximately 100 to 150 animal subjects treated

Table of Contents

with the test product and a comparable number of subjects in the control group that receive the placebo. In many cases, a pivotal field study may be designed with clinical sites in both the European Union and the United States, and this single study may satisfy regulatory requirements in both the European Union and the United States.

Chemistry, Manufacturing and Controls, or CMC. To assure that the product can be manufactured consistently, regulatory agencies will require us to provide documentation of the process by which the API is made and the controls applicable to that process that assure the API and the formulation of the final commercial product meet certain criteria, including purity and stability. After a product is approved, we will be required to communicate with the regulatory bodies any changes in the procedures or manufacturing site. Both API and commercial formulations are required to be manufactured at facilities that practice cGMP.

Environmental and Human Safety. We will not be required under United States law to provide an environment impact statement for products currently in development if the products are given at the home of the pet s owner or in a veterinary hospital. If products might result in some type of environmental exposure or release, the environmental impact must be assessed. For approval in the EU, a risk assessment for potential human exposure will be required.

Labeling, All Other Information, and Freedom of Information Summary. We also will be required to submit the intended label for the product, and also any information regarding additional research that has been conducted with the drug, to the CVM and other regulatory bodies for review. We will draft, and submit for regulatory review, the Freedom of Information Summary for use in the United States. This summary outlines the studies and provides substantial information that CVM uses to assess the drug s safety and effectiveness and then publishes on its website.

Regulatory Process at the FDA

To begin the development process for our products in the United States, we establish an Investigational New Animal Drug, or INAD, file with the CVM. We will then hold a pre-development meeting with the CVM to reach a general agreement on the plans for providing the data necessary to fulfill requirements for an NADA. During development, we will submit pivotal protocols to the CVM for review and concurrence prior to conducting the required studies. We will gather and submit data on manufacturing, safety and effectiveness to the CVM for review, and this review will be conducted according to timelines specified in the Animal Drug User Fee Act. Once all data have been submitted and reviewed for each technical section safety, effectiveness and CMC the CVM will issue us a technical section complete letter as each section review is completed, and when the three letters have been issued, we will compile a draft of the Freedom of Information Summary, the proposed labeling, and all other relevant information, and submit these as an administrative NADA for CVM review. Generally, if there are no deficiencies in the submission, the NADA will be issued within four to six months after submission of the administrative NADA. After approval, we will be required to collect reports of adverse events and submit them on a regular basis to the CVM.

Regulatory Process at the EMA

The EMA is responsible for coordinating scientific evaluation of applications for marketing approval for pet therapeutics in the EU. To perform these evaluations the EMA established a specific scientific committee, the CVMP. The CVMP considers applications submitted by companies for the marketing approval of individual pet therapeutics and evaluates whether or not the medicines meet the necessary quality, safety and efficacy requirements. Assessments conducted by the CVMP are based on scientific criteria and are intended to ensure that pet therapeutics reaching the marketplace have a positive benefit-risk balance in favor of the pet population they are intended for. Based on the CVMP s recommendation, a centralized marketing authorization is granted by the EMA, which allows the product to be marketed in any of the EU states. The CVMP is also responsible for various post-authorization and maintenance activities, including the assessment of modifications or extensions to an existing marketing authorization.

Table of Contents

To obtain authorization from the EMA, we must submit a marketing authorization application called a dossier. The dossier is the EMA s equivalent of the FDA s NADA and includes data from studies showing the quality, safety and efficacy of the product. The CVMP reviews and evaluates the dossier. For any dossier, a rapporteur and co-rapporteur are appointed from the members of the CVMP. Their role is to lead the scientific evaluation and prepare the assessment report. The rapporteur can utilize experts to assist it in performing its assessment. The report is critiqued by the co-rapporteur and other members of the CVMP before the CVMP makes its determination. The final opinion of the CVMP is generally given within 210 days of the submission of a dossier.

Employees

As of March 31, 2013, we had 16 full-time employees, including a total of six employees with D.V.M., V.M.D., M.D. or Ph.D. degrees. Within our workforce, nine employees are engaged in research and development and seven in business development, finance, legal, human resources, facilities, information technology and general management and administration. None of our employees are represented by labor unions or covered by collective bargaining agreements.

Properties

Our corporate headquarters are located in Kansas City, Kansas, where we lease and occupy approximately 2,700 square feet of office space pursuant to a lease that expires on September 30, 2015 and occupy an additional approximately 800 square feet of office space pursuant to a services agreement with a term that expires on September 30, 2015, subject to the right of either party to terminate such services agreement for material breach of any provision of such services agreement upon 10 days prior written notice. We also maintain additional corporate office space in Boston, Massachusetts pursuant to an administrative services agreement that may be terminated by either party upon 30 days prior written notice.

Legal Proceedings

We are not currently a party to any material legal proceedings.

Table of Contents

MANAGEMENT

Executive Officers and Directors

The following table sets forth the name, age and position of each of our executive officers and directors as of March 31, 2013.

Name	Age	Position
Executive Officers		
Steven St. Peter, M.D.	46	Director, President and Chief Executive Officer
Ernst Heinen, D.V.M., Ph.D.	50	Head of Drug Evaluation and Development
Louise A. Mawhinney	57	Chief Financial Officer
Linda Rhodes, V.M.D., Ph.D.[1]	63	Director and Chief Scientific Officer
Julia A. Stephanus	54	Chief Commercial Officer
Directors		
Jay Lichter, Ph.D.[1], [2]	51	Chairman of the Board
Robert Rip Gerber[3]	50	Director
Ronald L. Meeusen, Ph.D.[2][3]	61	Director
Craig Tooman[2], [3]	47	Director
John Vander Vort, Esq.[1]	48	Director

[1] Member of the nominating and corporate governance committee

[2] Member of the compensation committee

[3] Member of the audit committee

Executive Officers

Steven St. Peter, M.D. is one of our founders and has served as our President and Chief Executive Officer since September 2012. He has been a member of our board of directors since December 2010 and served as the chairman of our board of directors from December 2010 to September 2012. Dr. St. Peter was a managing director of MPM Asset Management LLC from January 2004 to May 2012, where he focused his investments on both venture and buyout transactions across the pharmaceuticals and medical technology industries. He has previous investment experience from Apax Partners and The Carlyle Group, two private equity firms. Dr. St. Peter was previously an assistant clinical professor of medicine at Columbia University. He received his M.D. from Washington University and completed his residency and fellowship at the Hospital of the University of Pennsylvania. Prior to his medical training, he was an investment banker at Merrill Lynch. Dr. St. Peter also holds an M.B.A. from the Wharton School of Business at the University of Pennsylvania and a B.A. in Chemistry from the University of Kansas. He is on the board of PharmAthene, Inc. and the New England Venture Capital Association, and his previous board experience includes Omrix Biopharmaceuticals, Inc., Helicos Biosciences Corporation, MPM Acquisition Corp., Proteon Therapeutics, Inc. and Rhythm Pharmaceuticals, Inc. Dr. St. Peter was selected to serve on our board of directors because of his diverse background as a venture capital investor, investment banker, physician and director of several healthcare companies, which provides him with a unique perspective in serving on our board of directors.

Ernst Heinen, D.V.M., Ph.D. has served as our Head of Drug Evaluation and Development since June 2012. From 1990 to 2012, Dr. Heinen held positions of increasing responsibility at Bayer Animal Health, the animal health division of Bayer AG, where he ultimately served as vice president of research & development and veterinary technical services, Pets. Dr. Heinen previously served on the boards of the Kansas City Area Development Council and the Center for Animal Health Innovation, and he is the author of dozens of scientific articles and presentations focused on the animal health industry. Dr. Heinen received a veterinary degree and a D.V.M. in veterinary microbiology from the Justus-Liebig-University of Giessen Veterinary School in Giessen, Germany, and is a certified specialist in veterinary microbiology.

97

Table of Contents

Louise A. Mawhinney has served as our Chief Financial Officer since September 2012. From May 2008 to September 2012, Ms. Mawhinney served as chief financial officer of Ikonisys Inc., a medical device and diagnostic company. From September 2006 to March 2008, she served as senior vice president and chief financial officer at Helicos BioSciences Corporation, a genetic analysis technology company. Prior to her tenure at Helicos, Ms. Mawhinney was chief financial officer for ArQule, Inc., a publicly-traded biotechnology company. She also formerly worked in the tax department of KPMG LLP in Boston. Additionally, Ms. Mawhinney serves as a board member and treasurer for Class, Inc., a non-profit organization. Ms. Mawhinney holds a Master s degree from the University of St. Andrews. She has been a Certified Public Accountant active in Massachusetts since 1989.

Linda Rhodes, V.M.D., Ph.D. has served as our Chief Scientific Officer since September 2012 and as a member of our board of directors since February 2011. In addition, she served as our Chief Executive Officer from February 2011 to September 2012. In 2001, Dr. Rhodes was a founding partner of AlcheraBio LLC, an animal health consulting and contract research firm, which was acquired in October 2008 by Argenta, a New Zealand animal health formulations and contract manufacturing organization, and she served as its vice president of clinical development from February 2008 to February 2011. She is an adjunct professor for the Graduate School of Animal Science at Rutgers University and is a member of the board of directors of the Alliance for Contraception in Cats and Dogs, a non-profit organization. She has been a member of the board of directors of ImmuCell Corporation since 2000 and a member of its audit and compensation committees since August 2005 and is the chairman of its compensation committee. From 1998 to 2001, she was a director of production animal development projects and new technology assessment at Merial Ltd. Prior to that role, she held various research positions at Merck Research Laboratories and Sterling Winthrop Drug Company. She has held several teaching positions and worked as a bovine veterinarian in private practice. She earned her Ph.D. in Physiology/Immunology from Cornell University and her V.M.D. from the University of Pennsylvania School of Veterinary Medicine, graduating summa cum laude. She also holds a Bachelor of Arts degree from Sarah Lawrence College. Dr. Rhodes was selected to serve on our board because of her background as an accomplished entrepreneur, executive and scientist in the pet therapeutics industry.

Julia A. Stephanus has served as our Chief Commercial Officer since January 2013. From September 2010 through December 2012, Ms. Stephanus was director of the global pet franchise for Ceva Animal Health, where she oversaw the commercial development of new products as well as global marketing for strategic pet products. In 2006, Ms. Stephanus founded Summit VetPharm, the developer of Vectra, a pet parasiticide product line, and served as its president and chief executive officer until it was acquired by Ceva Animal Health in August 2010. Prior to founding Summit VetPharm, Ms. Stephanus worked in various sales and marketing positions for Pfizer Inc. and its legacy companies, where she had the commercial responsibility for, among other things, the development and global launch of two highly-profitable pet products: Rimadyl, the first NSAID approved for osteoarthritis in dogs, and Revolution, the first topical endectocide for heartworm and fleas in cats and dogs. Ms. Stephanus received a B.A. from Indiana University and has attended executive education programs at Harvard, Columbia and the Wharton School of Business at the University of Pennsylvania.

Non-Employee Directors

Jay Lichter, Ph.D. has been a member of our board of directors since December 2010 and currently serves as the Chairman of the Board. He is an experienced biotechnology and pharmaceutical business executive with 25 years of experience in management, scientific research and business development. Since 2007, Dr. Lichter has been a managing director at Avalon Ventures, an early-stage venture capital fund focused on information technology and life sciences. In that role, he led Avalon s investments in and served as a director and chief executive officer for Afraxis, Inc., Carolus Therapeutics, Inc., Otonomy, Inc., and ReVision Therapeutics, Inc. and Zacharon Pharmaceuticals, Inc., all of which are privately-held biotechnology companies. He also led Avalon s investment in Sova Pharmaceuticals, Inc., a privately-held biotechnology company, and has served as a member of its board of directors since 2010. Dr. Lichter holds a B.S. and a Ph.D. in biochemistry from the University of Illinois. He also completed post-doctoral fellowships at Yale University and Du Pont Merck Pharmaceutical Company. We believe Dr. Lichter is qualified to serve on our board based on his experience as a venture capitalist investing in and serving on the boards of multiple life sciences companies, and his general leadership, financial and operational expertise.

Table of Contents

Robert Rip Gerber has been a member of our board of directors since October 2012. Since July 2009, he has served as the president and chief executive officer of Locaid Technologies, Inc., a telecommunications software company and a leading Location-as-a-Service (LaaS) platform in the wireless industry, and a member of its board of directors. From June 2006 to June 2009, Mr. Gerber served as the chief marketing officer and a member of the advisory board of SignalDemand Inc., a private firm focused on producing margin optimization software. From May 2004 to May 2006, Mr. Gerber served as chief marketing officer and senior vice president of Intellisync Corporation, a public company and provider of data synchronization software to consumer mobile devices. Prior to that role, he served as senior vice president at Carlson Companies, Inc., one of the largest family-held corporations in the United States. Mr. Gerber was also on the founding executive team of Commtouch Software, Inc., where, as chief marketing officer, he was a lead executive in taking the company public in 1999. Earlier in his career, Mr. Gerber was a consultant for Deloitte & Touche LLP, a public accounting firm. He holds an M.B.A. from Harvard Business School and a B.S. in Chemical Engineering from the University of Virginia. We believe Mr. Gerber is qualified to serve on our board because of his experience as an entrepreneur and his extensive background in operational, marketing and strategic planning.

Ronald L. Meeusen, Ph.D. has been a member of our board of directors since December 2012. He founded Cultivian Ventures L.P., a venture capital fund focused on high technology opportunities in the food and agricultural sectors, and has served as its Managing Partner since 2006. From 2005 to 2006, Dr. Meeusen served as an executive-on-loan for BioCrossroads, Inc., writing an economic development plan for the State of Indiana s food and agricultural sectors, as well as founding the biopharmaceutical company Immune Works, LLC. From 1998 to 2005, he served as global leader of plant genetics and biotechnology at Dow AgroSciences LLC where he led the expansion of its biotechnology research and development program. Dr. Meeusen also previously worked at Seminis Vegetable Seeds, where he helped integrate acquired businesses into its vegetable seed business, and Sandoz Seeds, where he designed and led biotechnology programs. Dr. Meeusen received a Ph.D. from the University of California, Berkeley in plant cell biology, and a B.S. in plant physiology from the University of Wisconsin Milwaukee. We believe Dr. Meeusen is qualified to serve on our board based on his significant experience as an entrepreneur, venture capitalist and executive in the biotechnology industry.

Craig Tooman has been a member of our board of directors since April 2012. Mr. Tooman is currently the chief executive officer of Avanzar Medical, Inc., a privately-held company focused on commercial oncology opportunities, a position he has held since February 2012. Mr. Tooman is also the founder and principal of Stockbourne LLC, a firm that provides strategic business and financial advisory services, a position he has held since January 2011. From July 2010 to January 2011, Mr. Tooman was the senior vice president of finance and chief financial officer of Ikaria Inc., a biotherapeutics company. From January 2005 to July 2010, Mr. Tooman was the executive vice president of finance and chief financial officer at Enzon Pharmaceuticals, a biopharmaceutical company. Prior to that, Mr. Tooman was the senior vice president of strategic planning and corporate communications at ILEX Oncology, Inc. and the vice president of investor relations at Pharmacia Corporation. Since 2011, Mr. Tooman has served on the board of directors of Insite Vision Incorporated and he is currently the chairman of its audit committee and a member of its compensation committee. He has a B.A. in Economics from Kalamazoo College and M.B.A. in Finance from the University of Chicago. Mr. Tooman was selected to serve on our board based on his extensive background and experience serving in various executive positions at biotechnology companies, which we believe will enable him to assist our board in understanding our financial condition, accounting and operations and in developing and implementing our financial strategy.

John Vander Vort, Esq. has been a member of our board of directors since September 2012. Mr. Vander Vort is currently a managing director, the chief operating officer and the chief compliance officer of MPM Asset Management LLC, a venture capital company. Mr. Vander Vort has served in this position since May 2005, and he served on the board of directors of MPM Acquisition Corp., a public shell company, from February 2008 to November 2010. Prior to joining MPM Asset Management, from May 2003 until May 2005, he worked as portfolio manager for DuPont Capital Management. Prior to that, he was a general partner and co-founder of BlueStream Ventures, a venture capital firm. Previously, he was a managing director at Dain Rauscher Wessels (now the Royal Bank of Canada), where he was the head of the West Coast networking and communications investment banking

Table of Contents

group and served as an advisor to leading venture-backed technology companies. Mr. Vander Vort began his career as a corporate transaction attorney in the San Francisco office of Cooley Godward, where he represented venture capital firms and venture-backed companies. Mr. Vander Vort earned his B.A. from Amherst College and his J.D. from The University of Chicago Law School. Mr. Vander Vort was selected to serve on our board because of his background in venture capital, significant legal experience and business acumen.

Composition of the Board of Directors

Director Independence

Our board of directors currently consists of seven members. Drs. St. Peter and Rhodes are not independent because they are both employees of Aratana. All of our directors, other than Steven St. Peter, M.D. and Linda Rhodes, Ph.D., D.V.M., qualify as independent in accordance with the listing requirements of The NASDAQ Global Market. The NASDAQ independence definition includes a series of objective tests, including that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his family members has engaged in various types of business dealings with us. In addition, as required by NASDAQ rules, our board of directors has made a subjective determination as to each independent director that no relationships exist, which, in the opinion of our board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our board of directors reviewed and discussed information provided by the directors and us with regard to each director s business and personal activities and relationships as they may relate to us and our management. There are no family relationships among any of our directors or executive officers.

Classified Board of Directors

In accordance with our restated certificate of incorporation that will go into effect immediately prior to the consummation of this offering, our board of directors will be divided into three classes with staggered, three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Effective upon the consummation of this offering, our directors will be divided among the three classes as follows:

- the Class I directors will be Robert Rip Gerber and Ronald L. Meeusen, Ph.D., and their terms will expire at the annual meeting of stockholders to be held in 2014;
- the Class II directors will be Jay Lichter, Ph.D. and John Vander Vort, Esq., and their terms will expire at the annual meeting of stockholders to be held in 2015; and
- the Class III directors will be Steven St. Peter, M.D., Linda Rhodes, V.M.D., Ph.D., and Craig Tooman, and their terms will expire at the annual meeting of stockholders to be held in 2016.

Our restated certificate of incorporation that will go into effect immediately prior to the consummation of this offering will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control of our company.

Voting Arrangements

The election of the members of our board of directors is currently governed by the second amended and restated stockholders agreement that we entered into with the holders of our common stock and the holders of our convertible preferred stock and the related provisions of our restated certificate of incorporation. Pursuant to the stockholders agreement and these provisions:

- the holders of at least 75% of our series A convertible preferred stock, voting separately as a single class, have the right to designate three directors for election to our board of directors, (i) one of whom is designated by

Table of Contents

Avalon Ventures IX L.P. and for which Dr. Lichter has been designated, (ii) one of whom is designated by entities affiliated with MPM BioVentures V, L.P. and for which Mr. Vander Vort has been designated, and (iii) one of whom is designated by the holders of at least 75% of our series A convertible preferred stock and for which Mr. Meeusen has been designated;

the holders of a majority of our series B convertible preferred stock and series C convertible preferred stock, voting together as a single class on an as-converted basis, have the right to designate one director for election to our board of director and for which Dr. Rhodes has been designated;

the holders of a majority of our common stock have the right to designate one director for election to our board of directors, who is our then-current Chief Executive Officer, currently Dr. St. Peter; and

the remaining directors will be designees who are acceptable to the directors designated by the holders of our series A convertible preferred stock as independent directors and for which Messrs. Tooman and Gerber have been designated.

The holders of our common stock and convertible preferred stock who are parties to our stockholders agreement are obligated to vote for the designees indicated above. The voting provisions of this stockholders agreement will terminate upon the consummation of this offering, at which time our certificate of incorporation will be restated and after which there will be no further contractual obligations or charter provisions regarding the election of our directors. Our directors hold office until their successors have been elected and qualified or appointed, or the earlier of their death, resignation or removal.

Leadership Structure of the Board

Our amended and restated bylaws and corporate governance guidelines provide our board of directors with flexibility to combine or separate the positions of Chairman of the Board and Chief Executive Officer in accordance with its determination that utilizing one or the other structure would be in the best interests of our company. At the current time, Jay Lichter, Ph.D., an independent director, serves as Chairman of the Board. Steven St. Peter, our current President and Chief Executive Officer, also serves as a director.

Our board of directors has concluded that our current leadership structure is appropriate at this time. However, our board of directors will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

Role of Board in Risk Oversight Process

Risk assessment and oversight are an integral part of our governance and management processes. Our board of directors encourages management to promote a culture that incorporates risk management into our corporate strategy and day-to-day business operations. Management discusses strategic and operational risks at regular management meetings and conducts specific strategic planning and review sessions during the year that include a focused discussion and analysis of the risks facing us. Throughout the year, senior management reviews these risks with the board of directors at regular board meetings as part of management presentations that focus on particular business functions, operations or strategies, and presents the steps taken by management to mitigate or eliminate such risks. Our board of directors does not have a standing risk management committee, but rather administers this oversight function directly through the board of directors as a whole, as well as through various standing committees of the board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure, and our audit committee is responsible for overseeing our major financial risk exposures and the steps our management has taken to monitor and control these exposures. The audit committee also monitors compliance with legal and regulatory requirements and, upon the listing of our common stock on The NASDAQ Global Market, will consider and approve or disapprove any related-person transactions. Upon the listing of our common stock on The NASDAQ Global Market, our nominating and governance committee will monitor the effectiveness of the corporate governance guidelines that we will adopt in connection with this offering. Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking.

Table of Contents

Board Committees and Independence

Our board has established three standing committees audit, compensation and nominating and corporate governance each of which will operate under a charter that has been approved by our board upon the listing of our common stock on the NASDAQ Global Market.

All of the members of each of the board s three standing committees, other than Linda Rhodes, V.M.D., Ph.D., are independent as defined under the rules of The NASDAQ Global Market. In addition, all members of the audit committee meet the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934, or the Exchange Act.

Audit Committee

The audit committee s responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing our internal audit function;
- discussing our risk management policies;
- establishing policies regarding hiring employees from the registered public accounting firm and procedures for the receipt and retention of accounting-related complaints and concerns;
- meeting independently with our internal auditing staff, registered public accounting firm and management;
- reviewing and approving or ratifying any related-person transactions; and
- preparing the audit committee report required by SEC rules.

The members of our audit committee are Craig Tooman, Robert Rip Gerber and Ronald L. Meeusen, Ph.D. Mr. Tooman serves as the chairman of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and The NASDAQ Global Market. Mr. Tooman is an audit committee financial expert as defined by applicable SEC rules and has the requisite financial sophistication as defined under the applicable NASDAQ rules and regulations. Under the rules of the SEC, members of the audit committee must also meet heightened independence standards. Each of Mr. Tooman, Mr. Gerber and Dr. Meeusen is independent under the applicable rules of the SEC and The NASDAQ Global Market. Upon the listing our common stock on The NASDAQ Global Market, the audit committee will operate under a written charter that satisfies the applicable standards of the SEC and The NASDAQ Global Market, which the audit committee will review and evaluate at least annually.

Compensation Committee

Our compensation committee reviews and recommends policies relating to compensation and benefits of our officers and employees. The compensation committee reviews and recommends corporate goals and objectives relevant to the compensation of our Chief Executive Officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives and recommends to our board of directors the compensation of these officers based on such evaluations. The compensation committee also recommends to our board of directors the issuance of stock options and other awards under our equity plans. The compensation committee will review and evaluate, at least annually, the performance of the compensation committee and its members, including compliance

Table of Contents

by the compensation committee with its charter. The members of our compensation committee are Jay Lichter, Ph.D., Ronald Meeusen, Ph.D. and Craig Tooman. Dr. Lichter serves as the chairman of the committee. Each of Dr. Lichter, Dr. Meeusen and Mr. Tooman is independent under the applicable rules and regulations of The NASDAQ Global Market. Upon the listing our common stock on The NASDAQ Global Market, the compensation committee will operate under a written charter, which the compensation committee will review and evaluate at least annually.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships and the size and composition of our board of directors. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies and reporting and making recommendations to our board of directors concerning governance matters. The members of our nominating and corporate governance committee are John Vander Vort, Esq., Jay Lichter, Ph.D., and Linda Rhodes, V.M.D., Ph.D. Mr. Vander Vort serves as the chairman of the committee. Each of Mr. Vander Vort and Dr. Lichter is independent under the applicable rules and regulations of The NASDAQ Global Market. Dr. Rhodes does not qualify as an independent director; however, pursuant to the listing requirements of The NASDAQ Global Market, she may remain on the nominating and corporate governance committee until one year from the listing of our common stock on The NASDAQ Global Market. Upon the listing of our common stock on The NASDAQ Global Market, the nominating and corporate governance committee will operate under a written charter, which the nominating and corporate governance committee will review and evaluate at least annually.

Compensation Committee Interlocks and Insider Participation

During 2012, the members of our compensation committee were Mr. Tooman and Drs. Lichter and Meeusen. Stockholders affiliated with Drs. Lichter and Meeusen purchased shares of our series B convertible preferred stock in February 2012 and shares of our series C convertible preferred stock in December 2012. For additional information regarding these stockholders and their equity holdings, see Certain Relationships and Related Person Transactions Preferred Stock Financings and Principal Stockholders. No member of our compensation committee is or has been our current or former officer or employee. None of our executive officers served as a director or a member of a compensation committee (or other committee serving an equivalent function) of any other entity, one of whose executive officers served as a director or member of our compensation committee during the fiscal year ended December 31, 2012.

Board Diversity

Upon consummation of this offering, our nominating and corporate governance committee will be responsible for reviewing with the board of directors, on an annual basis, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates (both new candidates and current members), the nominating and corporate governance committee, in recommending candidates for election, and the board of directors, in approving (and, in the case of vacancies, appointing) such candidates, will take into account many factors, including the following:

- personal and professional integrity, ethics and values;
- experience in corporate management, such as serving as an officer or former officer of a publicly-held company;
- strong finance experience;
- experience relevant to our industry;
- experience as a board member or executive officer of another publicly-held company;
- relevant academic expertise or other proficiency in an area of our operations;
- diversity of expertise and experience in substantive matters pertaining to our business relative to other board members;

Table of Contents

diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence and specialized experience;
practical and mature business judgment, including, but not limited to, the ability to make independent analytical inquiries; and
any other relevant qualifications, attributes or skills.

Currently, our board of directors evaluates, and following the consummation of this offering will evaluate, each individual in the context of the board of directors as a whole, with the objective of assembling a group that can best maximize the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas.

Code of Business Conduct and Ethics

Upon the listing of our common stock on The NASDAQ Global Market, we will adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Following the consummation of this offering, we will post a current copy of the code on our website, *www.aratana.com*. In addition, we intend to post on our website all disclosures that are required by law or the listing standards of The NASDAQ Global Market concerning any amendments to, or waivers from, any provision of the code. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this prospectus.

Table of Contents

EXECUTIVE AND DIRECTOR COMPENSATION

This section discusses the material components of the executive compensation program for our executive officers who are named in the 2012 Summary Compensation Table below. In 2012, our named executive officers and their positions were as follows:

Steven St. Peter, M.D., President and Chief Executive Officer
Linda Rhodes, V.M.D., Ph.D., Chief Scientific Officer*
Louise Mawhinney, Chief Financial Officer
Ernst Heinen, D.V.M., Ph.D., Head of Drug Evaluation and Development
David Rosen, D.V.M., Former President and Chief Operating Officer

* Dr. Rhodes served as our Chief Executive Officer until September 6, 2012, when she became Chief Scientific Officer.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the completion of this offering may differ materially from the currently planned programs summarized in this discussion.

2012 Summary Compensation Table

The following table sets forth information concerning the compensation of our named executive officers for the year ended December 31, 2012:

Name and principal position	Year	Salary	Bonus	Stock Awards[7]	Option Awards[7]	Non-equity Incentive Plan Compensation[10]	All Other Compensation	Total
Steven St. Peter, M.D.[1] President and Chief Executive Officer	2012	$ 134,038[4]	$ 70,000	$	$ 57,898[8]	$ 65,000	$ 30,000[11]	$ 356,936
Linda Rhodes, V.M.D., Ph.D. [2] Chief Scientific Officer	2012	$ 275,000	$ 142,500	$ 6,000	$	$ 48,125	$	$ 471,625
Louise Mawhinney Chief Financial Officer	2012	$ 72,981[5]	$	$ 17,140	$ 21,000	$ 32,500	$	$ 143,621
Ernst Heinen, D.V.M., Ph.D. Head of Drug Evaluation and Development	2012	$ 153,904[6]	$ 20,000	$	$ 24,500	$ 62,500	$	$ 260,904
David Rosen, D.V.M.[3] Former President & Chief Operating Officer	2012	$ 153,526	$	$	$ 12,424[9]	$	$ 234,188[12]	$ 400,138

(1) Dr. St. Peter began serving as our President and Chief Executive Officer on September 6, 2012. Prior to that date, Dr. St. Peter served in 2012 as Chairman of our board of directors and, from May 18, 2012 to September 6, 2012, as a consultant to the company. Amounts shown in this table include compensation earned by Dr. St. Peter during 2012 for service as an employee and as a consultant. Dr. St. Peter did not receive compensation for director services performed during 2012.

(2) Dr. Rhodes began serving as our Chief Scientific Officer on September 6, 2012. Prior to that date, Dr. Rhodes served in 2012 as our Chief Executive Officer. Amounts shown in this table include compensation received by Dr. Rhodes for service both as our Chief Executive Officer and as our Chief Scientific Officer. Dr. Rhodes did not receive compensation for director services performed during 2012.

(3) Dr. Rosen resigned employment with us on August 9, 2012.

(4)

Represents base salary earned by Dr. St. Peter for service as our President and Chief Executive Officer during 2012. Dr. St. Peter s annual base salary for this period was $425,000.

(5) Represents base salary earned by Ms. Mawhinney for service as our Chief Financial Officer during 2012. Ms. Mawhinney s annual base salary for this period was $275,000.

(6) Represents base salary earned by Dr. Heinen for service as our Head of Drug Evaluation and Development during 2012. Dr. Heinen s annual base salary for this period was $265,000.

Table of Contents

(7) Amounts represent the aggregate grant date fair value of the awards granted during 2012 computed in accordance with ASC Topic 718, excluding the effects of any estimated forfeitures. The assumptions used in the valuation of these awards are discussed further in Note 12 to our financial statements included in this prospectus.

(8) Represents $17,500 attributable to an option to purchase 75,210 shares of our common stock granted to Dr. St. Peter as compensation for the performance of consulting services prior to becoming our Chief Executive Officer and $40,398 attributable to an option to purchase 173,619 shares of our common stock granted to Dr. St. Peter upon commencing employment as our President and Chief Executive Officer. The option to purchase 75,210 shares was originally an option granted to purchase 120,336 shares, of which 45,126 shares were forfeited upon termination of Dr. St. Peter s consulting agreement.

(9) Represents the incremental fair value of Dr. Rosen s options that were modified in connection with his separation from employment, as computed in accordance with ASC Topic 718.

(10) Represent awards earned during 2012 under the company s annual cash incentive bonus program.

(11) Represents consulting fees earned by Dr. St. Peter prior to becoming our President and Chief Executive Officer.

(12) Represents $187,500 in severance payments, $6,038 in reimbursement of insurance premiums for continuation coverage under our group health plans, $10,650 in post-resignation consulting fees and a $30,000 consulting performance bonus earned by Dr. Rosen during 2012.

Narrative Disclosure to Compensation Tables

Employment Agreements

Steven St. Peter, M.D.

In September 2012, we entered into an employment agreement with Dr. St. Peter to serve as our President and Chief Executive Officer. The employment agreement is for an unspecified term. Prior to becoming our President and Chief Executive Officer, Dr. St. Peter served as Chairman of our board of directors. In addition, Dr. St. Peter provided consulting services to our company from May 2012 to September 2012 under the terms of a consulting agreement. These services generally related to assisting in the consummation of a capital-raising transaction and the identification and hiring of talent for key positions at our company. As compensation for performing consulting services, Dr. St. Peter received a consulting fee, payable monthly, at an annual rate of $100,000 and an option to purchase up to 120,336 shares of our common stock for an exercise price per share equal to the fair market value of our common stock on the date of grant. The option was scheduled to vest in equal monthly installments over the 24 months following the date of grant, subject to partial accelerated vesting upon the attainment of goals relating to Dr. St. Peter s performance of consulting services or the company s election to terminate the consulting agreement and full accelerated vesting upon a change in control.

Dr. St. Peter s consulting relationship with the company ended on the effective date of his employment agreement. In connection with his transition from consultant to employee, Dr. St. Peter became entitled to a special cash bonus of $70,000 and vesting of 60,168 unvested shares underlying the option that was granted to him for services as a consultant during 2012 as of the date of the termination of his consulting agreement. An additional 15,042 of unvested shares were accelerated as of the date of the termination of Dr. St. Peter s consulting agreement. The remaining 45,126 underlying unvested shares were forfeited. Dr. St. Peter does not currently, and did not during 2012, receive compensation for his services as a director.

Dr. St. Peter s employment agreement provides for an annual base salary of $425,000 and a cash bonus under our annual cash incentive bonus program, or the Cash Bonus Plan, targeted at 35% of his annual base salary.

Under the terms of Dr. St. Peter s employment agreement, if we terminate his employment without cause or he resigns for good reason, then subject to his executing a general release of claims, Dr. St. Peter will be entitled to receive 12 months of continued base salary, reimbursement of up to 12 months of insurance premiums for

106

Table of Contents

continuation coverage under our group health plans and accelerated vesting of all equity awards which would have vested during the 12 months following his termination had he remained employed with us, provided that if we terminate Dr. St. Peter s employment without cause after providing him notice that his performance of certain services or activities for other entities is interfering with his performance of duties for us, then Dr. St. Peter shall only be entitled to one-half of these severance benefits. The agreement further provides that if Dr. St. Peter s employment is terminated due to his death or disability, he will be entitled to receive accelerated vesting of all equity awards which would have vested during the 12 months following his termination had he remained employed with us.

Cause for purposes of Dr. St. Peter s employment agreement means (i) the conviction of a felony or crime involving moral turpitude of dishonesty, (ii) participation in a fraud against the company, (iii) willful and material breach of duties, (iv) intentional and material damage to company property or (v) material breach of the non-disclosure and assignment agreement with the company, in each case, after a reasonable opportunity (or 30 days with respect to willful and material breach of duties) to cure the condition constituting cause has expired. Good reason means (a) a material diminution in authority, duties or responsibilities, (b) a material change in work location, (c) a material diminution in base compensation or (d) a material breach of the employment agreement which remains uncured or 30 days following receipt of notice.

Dr. St. Peter s employment agreement contains covenants pursuant to which Dr. St. Peter has agreed not to compete with the company for nine months or solicit company employees for one year following his termination of employment for any reason. The agreement further provides that any payments received by Dr. St. Peter under the employment agreement in connection with a change in control that are subject to excise taxes under Section 4999 of the Internal Revenue Code will be reduced to the extent the reduction results in a greater amount being paid to Dr. St. Peter on an after-tax basis.

In April 2013, our board of directors approved an amendment to Dr. St. Peter s employment agreement that modifies several key provisions and will become effective on the pricing date. The amendment (1) increases Dr. St. Peter s cash bonus target to 50% of his annual base salary; (2) provides that in the event that we terminate Dr. St. Peter s employment without cause or he resigns for good reason on account of or within the 12-month period following a change in control, referred to below as the Double-Trigger Period, he will be entitled to receive 150% of the sum of the base salary in effect at the time of termination plus the target cash bonus in effect for the year of termination, paid in equal installments over a period of 18 months, reimbursement for up to 18 months of insurance premiums for continuation coverage under our group health plans and accelerated vesting in full of all outstanding equity awards; (3) provides that a change in control will result in the accelerated vesting only of those equity awards granted to Dr. St. Peter prior to the pricing date and will not result in the accelerated vesting of those equity awards granted in conjunction with or following this offering unless Dr. St. Peter s employment is also terminated without cause or he resigns for good reason during the Double-Trigger Period; and (4) increases the duration of Dr. St. Peter s covenant not to compete with the company to (i) 18 months following his termination of employment by us without cause or by him for good reason during the Double-Trigger Period and (ii) 12 months following his termination of employment for any other reason. The amendment also provides that on the pricing date, we will grant Dr. St. Peter a stock option to purchase 150,421 shares of our common stock for an exercise price per share equal to the initial public offering price of our common stock.

Linda Rhodes, V.M.D., Ph.D

In September 2012, we entered into an employment agreement with Dr. Rhodes to serve as our Chief Scientific Officer. The employment agreement is for an unspecified term. Prior to becoming Chief Scientific Officer, Dr. Rhodes served as our Chief Executive Officer under an employment agreement dated December 27, 2010 and amended on November 1, 2011. Dr. Rhodes s prior employment agreement terminated on the effective date of her current employment agreement. Under the terms of both employment agreements, Dr. Rhodes s annual base salary for 2012 was $275,000 and her 2012 cash bonus under the Cash Bonus Plan was targeted at 20% of her annual base

Table of Contents

salary. When she transitioned from Chief Executive Officer to Chief Scientific Officer, Dr. Rhodes received a special cash bonus of $142,500, and accelerated vesting of 112,816 unvested shares underlying an option to purchase 225,631 shares of our common stock that was granted to Dr. Rhodes in October 2011; the vesting schedule on the remaining 112,815 shares was modified such that they would vest over equal monthly installments between January and December 2013. Effective January 2013, as provided in her employment agreement, Dr. Rhodes salary was decreased from $275,000 to $225,000 and the time Dr. Rhodes is required to spend performing services for the company was reduced proportionally. Dr. Rhodes does not currently, and did not during 2012, receive compensation for her services as a director.

Under the terms of Dr. Rhodes s employment agreement, if we terminate her employment without cause or she resigns for good reason, then subject to her executing a general release of claims, Dr. Rhodes will be entitled to receive six months of continued base salary, reimbursement for up to six months of insurance premiums for continuation coverage under our group health plans and accelerated vesting of the stock option awards granted to her prior to the effective date of her employment agreement. In addition, If Dr. Rhodes resigns her employment with us without good reason following January 1, 2014, then subject to her executing a general release of claims, Dr. Rhodes will be entitled to receive six months of continued base salary and accelerated vesting of the stock option awards granted to her prior to the effective date of her employment agreement. The agreement further provides that if Dr. Rhodes s employment is terminated due to her death or disability, she will be entitled to receive accelerated vesting of the stock option awards granted to her prior to the effective date of her employment agreement which would have vested during the 12 months following her termination had she remained employed with us.

The terms cause and good reason have substantially the same definition in Dr. Rhodes s employment agreement as in Dr. St. Peter s employment agreement.

Dr. Rhodes s employment agreement contains covenants pursuant to which Dr. Rhodes has agreed not to compete with the company for 24 months or solicit company employees for one year following her termination of employment for any reason. The agreement further provides that any payments received by Dr. Rhodes under the employment agreement in connection with a change in control which are subject to excise taxes under Section 4999 of the Internal Revenue Code will be reduced to the extent the reduction results in a greater amount being paid to Dr. Rhodes on an after-tax basis.

In April 2013, our board of directors approved an amendment to Dr. Rhodes s employment agreement that will become effective on the pricing date. The amendment (1) increases Dr. Rhodes s cash bonus target to 30% of her annual base salary; (2) provides that following a termination of Dr. Rhodes s employment by us without cause or by her resignation for good reason, all equity awards granted in conjunction with or following this offering which would have vested during the six months following such termination shall vest; and (3) provides that in the event that we terminate Dr. Rhodes s employment without cause or she resigns for good reason during the Double-Trigger Period, she will be entitled to receive 12 months of continued base salary, reimbursement for up to 12 months of insurance premiums for continuation coverage under our group health plans and accelerated vesting in full of all outstanding equity awards. The amendment also provides that on the pricing date, we will grant Dr. Rhodes a stock option to purchase 15,042 shares of our common stock for an exercise price per share equal to the initial public offering price of our common stock.

Louise Mawhinney

In September 2012, we entered into an employment agreement with Ms. Mawhinney to serve as our Chief Financial Officer. Ms. Mawhinney s employment agreement is for an unspecified term. The employment contract provides for an annual base salary of $275,000 and a cash bonus under the Cash Bonus Plan targeted at 30% of base salary.

Under the terms of Ms. Mawhinney s employment agreement, if we terminate her employment without cause or she resigns for good reason, then, subject to her executing a general release of claims, Ms. Mawhinney will be entitled to receive six months of continued base salary, reimbursement for up to six months of insurance premiums

Table of Contents

for continuation coverage under our group health plans and accelerated vesting of all equity awards which would have vested during the six months following her termination had she remained employed with us. In addition, if Ms. Mawhinney s employment is terminated due to her death or disability, she will be entitled to receive accelerated vesting of all equity awards which would have vested during the six months following her termination had she remained employed with us.

The terms cause and good reason have substantially the same definition in Ms. Mawhinney s employment agreement as in Dr. St. Peter s employment agreement.

Ms. Mawhinney s employment agreement contains covenants pursuant to which Ms. Mawhinney has agreed not to compete with the company for six months or solicit company employees for one year following her termination of employment for any reason. The agreement further provides that any payments received by Ms. Mawhinney under the employment agreement in connection with a change in control which are subject to excise taxes under Section 4999 of the Internal Revenue Code will be reduced to the extent the reduction results in a greater amount being paid to Ms. Mawhinney on an after-tax basis.

In April 2013, our board of directors approved an amendment to Ms. Mawhinney s employment agreement that will become effective on the pricing date. The amendment provides that in the event that we terminate Ms. Mawhinney s employment without cause or she resigns for good reason during the Double-Trigger Period, she will be entitled to receive 12 months of continued base salary, reimbursement for up to 12 months of insurance premiums for continuation coverage under our group health plans and accelerated vesting in full of all outstanding equity awards. The amendment also provides that on the pricing date, we will grant Ms. Mawhinney a stock option to purchase 15,042 shares of our common stock for an exercise price per share equal to the initial public offering price of our common stock.

Ernst Heinen, D.V.M., Ph.D.

Dr. Heinen joined our company as the Head of Drug Evaluation and Development in June 2012. Dr. Heinen s employment offer letter provided for an annual base salary of $265,000, a cash bonus under the Cash Bonus Plan of 40% of annual base salary and a one-time signing bonus of $20,000.

In March 2013, we entered into an employment agreement with Dr. Heinen. The employment contract provides for an annual base salary of $275,000 and a cash bonus under the Cash Bonus Plan targeted at 35% of base salary. The agreement also provides that on the pricing date, we will grant Dr. Heinen a stock option to purchase 30,084 shares of our common stock for an exercise price per share equal to the initial public offering price of our common stock.

Under the terms of Dr. Heinen s employment agreement, if we terminate his employment without cause or he resigns for good reason, then, subject to his executing a general release of claims, Dr. Heinen will be entitled to receive six months of continued base salary and reimbursement for up to six months of insurance premiums for continuation coverage under our group health plans. In addition, if Dr. Heinen s employment is terminated due to his death or disability, he will be entitled to receive accelerated vesting of all equity awards which would have vested during the six months following his termination had he remained employed with us.

The terms cause and good reason have substantially the same definition in Dr. Heinen s employment agreement as in Dr. St. Peter s employment agreement.

Dr. Heinen s employment agreement contains covenants pursuant to which Dr. Heinen has agreed not to compete with the company for six months or solicit company employees for one year following his termination of employment for any reason. The agreement further provides that any payments received by Dr. Heinen under the employment agreement in connection with a change in control which are subject to excise taxes under Section 4999 of the Internal Revenue Code will be reduced to the extent the reduction results in a greater amount being paid to Dr. Heinen on an after-tax basis.

Table of Contents

In April 2013, our board of directors approved an amendment to Dr. Heinen s employment agreement that will become effective on the pricing date. The amendment provides that in the event that we terminate Dr. Heinen s employment without cause or he resigns for good reason during the Double-Trigger Period, he will be entitled to receive 12 months of continued base salary, reimbursement for up to 12 months of insurance premiums for continuation coverage under our group health plans and accelerated vesting in full of all outstanding equity awards.

David Rosen, D.V.M.

Dr. David Rosen was our President and Chief Commercial Officer until he resigned in August 2012. The terms of his employment contract included a salary of $250,000. The terms of his separation included, in exchange for a release of claims, a lump sum payment equal to $187,500, nine months of health care continuation, acceleration of stock options to purchase 269,817 shares of our common stock and an extension of the post-termination exercise period of his outstanding stock options until August 9, 2013.

In August 2012, we entered into a consulting agreement with Dr. Rosen. The agreement provides for Dr. Rosen to receive a consulting fee of $300 per hour and a 2012 cash bonus of up to $40,000, based upon the company s and Dr. Rosen s achievement of certain performance goals, and subject to Dr. Rosen not terminating the consulting agreement prior to December 2012.

2012 Cash Bonus Plan

All named executive officers are eligible to participate in our discretionary Cash Bonus Plan. For each named executive officer, bonuses under the Cash Bonus Plan are determined by multiplying:

(Base Salary) x (Target Cash Bonus Percentage) x (Company s Percent Achievement of Corporate Objectives)

Cash bonuses under the plan are generally prorated to reflect a partial year of service, and the board of directors reserves discretion to adjust bonuses based on its own evaluations and recommendations of our compensation committee.

The named executive officers employment agreements establish their target annual cash bonuses, expressed as a percentage of base salary. For 2012, our named executive officers had the following target bonus percentages:

Name	2012 Target Bonus (% of base salary)
Steven St. Peter, M.D.	35%
Linda Rhodes,V.M.D., Ph.D.	20%
Louise Mawhinney	30%
Ernst Heinen, D.V.M., Ph.D.	40%
David Rosen, D.V.M.	35%

Corporate objectives for the 2012 Cash Bonus Plan were established in February 2012 by our board of directors in consultation with management and generally related to clinical development, financing, in-licensing, team and brand-building and operational goals. In February 2013, the board of directors determined in consultation with management that the company s percentage achievement of corporate objectives under the 2012 Cash Bonus Plan was 87.5%.

When determining the actual 2012 bonuses for our named executive officers, the board of directors elected to exercise its discretion to adjust the bonuses for certain named executive officers. Drs. St. Peter and Heinen and Ms. Mawhinney each received a cash bonus in excess of the prorated award they would have received under the formula above. The actual award granted to each named executive officer under the 2012 Cash Bonus Plan is set forth in the Non-equity Incentive Plan Compensation of our 2012 Summary Compensation Table, above.

Table of Contents

For 2013, the named executive officers target bonus percentages are the same as the 2012 target bonus percentages listed above except for Dr. Heinen. Dr. Heinen s target bonus percentage was decreased from 40% to 35% in recognition of the higher base salary he receives under his new employment agreement and to bring his target more in-line with other executives. Upon the effectiveness of this offering, our named executive officers target bonus percentages under the Cash Bonus Plan shall be as follows:

Named Executive Officer	Post-IPO Target Bonus (% of base salary)
Steven St. Peter, M.D.	50%
Linda Rhodes, V.M.D., Ph.D.	30%
Louise Mawhinney	30%
Ernst Heinen, D.V.M., Ph.D.	35%

Equity Compensation

We offer stock options and stock awards to our employees, including named executive officers, as the long-term incentive component of our compensation program. We typically grant equity awards to new hires upon their commencing employment with us. Our stock options allow employees to purchase shares of our common stock at a price per share equal to the fair market value of our common stock on the date of grant and may or may not be intended to qualify as incentive stock options for U.S. federal income tax purposes. In the past, our board of directors has determined the fair market value of our common stock based upon inputs including valuation reports prepared by third-party valuation firms from time to time. Generally, the stock options we grant vest as to 25% of the total number of option shares on the first anniversary of the date of grant and in equal monthly installments over the ensuing 36 months, subject to the employee s continued employment with us on the vesting date. We also generally offer our employees the opportunity to early exercise their unvested stock options by purchasing shares underlying the unvested portion of an option subject to our right to repurchase any unvested shares for the lesser of the exercise price paid for the shares and the fair market value of the shares on the date of the holder s termination of service if the employee s service with us terminates prior to the date on which the options are fully vested.

We grant stock awards to our employees consisting of shares of our common stock which are subject to our right to repurchase shares at the time the employee s service with us terminates. The repurchase price for shares of stock under these awards for our named executive officers equals the greater of the fair market value of the shares on the date of grant of the stock award and the date of the holder s termination of service with us. Generally, our right to repurchase these shares lapses as to 25% of the total number of shares on the first anniversary of the date of grant and in equal monthly installments over the ensuing 36 months, subject to the employee s continued employment with us.

Stock options and stock awards granted to our named executive officers may be subject to accelerated vesting in certain circumstance. For additional discussion, please see Employment Agreements above and Other Elements of Compensation Change in Control Benefits below.

All of our named executive officers, other than Dr. Rosen, received stock option awards in 2012 upon commencing employment with us, or in Dr. Rhodes s case, upon entering into her new employment agreement with us. In addition, Dr. Rhodes and Ms. Mawhinney received stock awards during 2012, and Dr. St. Peter purchased stock awards for their fair market value on the date of grant.

Prior to the effectiveness of this offering, we intend to adopt a 2013 Incentive Award Plan, referred to below as the Plan, in order to facilitate the grant of cash and equity incentives to directors, employees (including our named executive officers) and consultants of our company and certain of its affiliates and to enable our company and certain of its affiliates to obtain and retain services of these individuals, which is essential to our long-term success. For additional information about the Plan, please see the section titled 2013 Incentive Award Plan below.

Table of Contents

Our board of directors has approved awards of incentive stock options to our named executive officers on the pricing date in the following amounts:

Named Executive Officer	Number of Options
Steven St. Peter, M.D.	150,421
Linda Rhodes, V.M.D., Ph.D.	15,042
Louise Mawhinney	15,042
Ernst Heinen, D.V.M., Ph.D.	30,084

The above grants will have an exercise price equal to the initial public offering price of our common stock and will vest as to 25% of the total number of option shares on the first anniversary of the date of grant and in equal monthly installments over the ensuing 36 months, subject to acceleration upon a qualifying termination of employment during the Double-Trigger Period.

Other Elements of Compensation

Retirement Plans

We currently maintain a 401(k) retirement savings plan that allows eligible employees to defer a portion of their compensation, within limits prescribed by the Internal Revenue Code, on a pre-tax basis through contributions to the plan. Our named executive officers are eligible to participate in the 401(k) plan on the same terms as other full-time employees generally. Currently, we match contributions made by participants in the 401(k) plan up to a specified percentage, and these matching contributions are fully vested as of the date on which the contribution is made. We believe that providing a vehicle for tax-deferred retirement savings though our 401(k) plan, and making fully vested matching contributions, adds to the overall desirability of our executive compensation package and further incentivizes our employees, including our named executive officers, in accordance with our compensation policies.

Employee Benefits and Perquisites

Our named executive officers are eligible to participate in our health and welfare plans to the same extent as all full-time employees generally. We do not provide our named executive officers with perquisites or other personal benefits.

No Tax Gross-Ups

We do not make gross-up payments to cover our named executive officers personal income taxes that may pertain to any of the compensation paid or provided by our company.

Change in Control Benefits

As described in greater detail above, our named executive officers may become entitled to certain benefits or enhanced benefits in connection with a change in control of our company. Dr. St. Peter s employment agreement entitles him to accelerated vesting of all outstanding equity awards immediately prior to a change in control of our company. The amendment to Dr. St. Peter s employment agreement, which will become effective on the pricing date, provides that a change in control will result in the accelerated vesting only of those equity awards granted to Dr. St. Peter prior to the pricing date and will not result in the accelerated vesting of those equity awards granted in conjunction with or following this offering unless Dr. St. Peter s employment is also terminated without cause or he resigns for good reason during the Double-Trigger Period. Dr. Rhodes s employment agreement entitles her to full accelerated vesting of the stock options that were granted to her in 2011 immediately prior to a change in control of our company. In addition, the amendment to Dr. Rhodes s employment agreement, which will become effective on the pricing date, entitles her to accelerated vesting

Table of Contents

of all equity awards granted in conjunction with or following this offering if her employment is terminated without cause or she resigns for good reason during the Double-Trigger Period. Dr. Heinen s and Ms. Mawhinney s employment agreements entitle him or her to full accelerated vesting of all outstanding equity awards immediately prior to a change in control of our company if his or her employment is terminated without cause or he or she resigns for good reason during the Double-Trigger Period.

Outstanding Equity Awards at 2012 Fiscal Year-End

The following table summarizes the number of shares of common stock underlying outstanding equity incentive plan awards for each named executive officer as of December 31, 2012.

	Option Awards					Stock Awards	
Name	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable[1]	Number of Securities Underlying Unexercised Options (#) Unexercisable[1]	Option Exercise Price ($)	Option Expiration Date	Number of Shares of Stock That Have Not Vested (#)	Market Value of Shares of Stock That Have Not Vested ($)[7]
Steven St. Peter, M.D.	9/25/12				9/25/22	173,619[4]	$ 449,673
Linda Rhodes,V.M.D., Ph.D.	2/24/11				2/24/21	25,070[5]	$ 64,931
	10/31/11				10/31/21	112,815[6]	$ 292,191
Louise Mawhinney	9/25/2012	87,243[2]		0.40	9/25/22		
Ernst Heinen, Ph.D., D.V.M.	8/2/2012	105,294[2]		0.40	6/1/22		
David Rosen, D.V.M.	2/24/2011	210,589[3]		0.15	8/10/13		
	10/31/2011	59,228[3]		0.43	8/10/13		

(1) All stock options held by our named executive officers are immediately exercisable with respect to both vested and unvested shares. Unvested shares purchased upon exercise of an option are subject to our right of repurchase in the event the optionee s service with us terminates prior to the end of the applicable vesting term for a purchase price equal to the lesser of the exercise price paid or the fair market value of the shares on the date of the optionee s termination of service. Accordingly, these columns reflect that all of our outstanding options are exercisable, whether or not the underlying shares are vested.

(2) The option vests as to 25% of the total number of option shares on the first anniversary of the date of grant and in equal monthly installments over the ensuing 36 months, subject to the employee s continued employment with us on the vesting date.

(3) All shares subject to the option are fully vested.

(4) Dr. St. Peter exercised unvested stock options prior to vesting and paid the $0.40 per share exercise price. The exercise resulted in Dr. St. Peter holding shares in the form of restricted stock that vests as to 25% of the total number of shares on July 1, 2013 and in equal monthly installments over the ensuing 36 months, subject to the employee s continued employment with us on the vesting date.

(5) Dr. Rhodes exercised unvested stock options prior to vesting and paid the $0.15 per share exercise price. The exercise resulted in Dr. Rhodes holding shares in the form of restricted stock that vest in equal monthly installments over the 24-month period beginning in March 2011.

(6) Dr. Rhodes exercised unvested stock options prior to vesting and paid the $0.43 per share exercise price. The exercise resulted in Dr. Rhodes holding shares in the form of restricted stock that vest in equal monthly installments between January and December 2013.

(7) Determined by multiplying the number of unvested shares by $2.59, the revised fair market value per share of our common stock on December 31, 2012 as determined pursuant to a retrospective independent valuation.

Table of Contents

Director Compensation

2012 Director Compensation Table

The following table sets forth information for the year ended December 31, 2012 regarding the compensation awarded to, earned by or paid to our non-employee directors who served on our board of directors during 2012. Employees of our company who also serve as directors do not receive additional compensation for their performance of services as directors.

Name[1]	Fees Earned or Paid in Cash ($)	Option Awards ($)[2]	All Other Compensation ($)	Total ($)
Craig Tooman	$ 28,333	$ 3,370	$ 20,800[3]	$ 52,503
Robert Gerber	$ 7,159	$ 12,500		$ 19,659
Jay Lichter, Ph.D.				
John Vander Vort, Esq.				
Ron Meeusen, Ph.D.				

(1) Dr. St. Peter, our President and Chief Executive Officer, served as Chairman of our board of directors prior to becoming an employee in September 2012. In addition, from May 2012 to September 2012, Dr. St. Peter served as a consultant to the company. Dr. St. Peter did not receive compensation for director services performed during 2012. Amounts earned during 2012 by Dr. St. Peter for consulting services and as an employee of our company have been included in the 2012 Summary Compensation Table, above.

(2) Amounts reflect the full grant-date fair value of stock options granted during 2012 computed in accordance with ASC Topic 718 (excluding the effect of any estimated forfeitures), rather than the amounts paid to or realized by the named individual. We provide information regarding the assumptions used to calculate the value of all stock awards and option awards made to our directors in 2012 in Note 12 to our financial statements included in this prospectus.

(3) Represents consulting fees paid to Mr. Tooman during 2012.

The table below shows the aggregate numbers of option awards (exercisable and unexercisable) and unvested stock awards held as of December 31, 2012 by each non-employee director who was serving as of December 31, 2012.

Name	Options Outstanding at Fiscal Year End	Unvested Restricted Shares Outstanding at Fiscal Year End
Craig Tooman	15,042	
Robert Gerber	15,042	

Following the effectiveness of this offering, we intend to approve and implement a compensation program for our non-employee directors that consists of annual retainer fees and long-term equity awards. We expect each non-employee director will receive an annual cash retainer for his or her services in an amount equal to $25,000 and additional amounts that have not yet been determined for service on board committees. We further expect that non-employee directors will also receive initial grants of options to purchase 13,237 shares of our common stock, vesting over three years, upon election to the board of directors or, for our current directors, the effectiveness of this offering, and thereafter annual grants of options to purchase 6,618 shares of our common stock, vesting over one year.

2013 Incentive Award Plan

Our board of directors has adopted, and our stockholders have approved, the Plan, which will become effective as of the day prior to the pricing date. Under the Plan, we may grant cash and equity incentive awards to eligible service providers in order to attract, motivate and retain the talent for which we compete. The material terms of the Plan are summarized below.

114

Table of Contents

Eligibility and Administration. Our employees, consultants and directors, and employees, consultants and directors of our subsidiaries will be eligible to receive awards under the Plan. Following our initial public offering, the Plan will be administered by our board of directors with respect to awards to non-employee directors and by our compensation committee with respect to other participants, each of which may delegate its duties and responsibilities to committees of our directors and/or officers (referred to collectively as the plan administrator below), subject to certain limitations that may be imposed under Section 162(m) of the Internal Revenue Code, or the Code, Section 16 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and/or stock exchange rules, as applicable. The plan administrator will have the authority to make all determinations and interpretations under, prescribe all forms for use with, and adopt rules for the administration of, the Plan, subject to its express terms and conditions. The plan administrator will also set the terms and conditions of all awards under the Plan, including any vesting and vesting acceleration conditions.

Limitation on Awards and Shares Available. An aggregate of 962,695 shares of our common stock will initially be available for issuance under awards granted pursuant to the Plan. The number of shares initially available for issuance will be increased by (i) the number of shares represented by awards outstanding under our 2010 Equity Incentive Plan, or the 2010 Plan, that are forfeited or lapse unexercised and which following the effective date are not issued under the 2010 Plan and (ii) an annual increase on January 1 of each calendar year beginning in 2014 and ending in 2023, equal to the lesser of (A) 1,203,369 shares, (B) four percent (4.0%) of the shares of common stock outstanding (on an as converted basis) on the final day of the immediately preceding calendar year and (C) such smaller number of shares as determined by our board of directors; provided, however, no more than 6,016,847 shares of common stock may be issued upon the exercise of incentive stock options. On the effective date of the Plan, the 2010 Plan will be terminated, provided, that any awards outstanding under the 2010 Plan remain subject to the terms and conditions of the 2010 Plan. Shares issued under the Plan may be authorized but unissued shares, or shares purchased in the open market.

If an award under the Plan is forfeited, expires or is settled for cash, any shares subject to such award may, to the extent of such forfeiture, expiration or cash settlement, be used again for new grants under the Plan. Awards granted under the Plan upon the assumption of, or in substitution for, awards authorized or outstanding under a qualifying equity plan maintained by an entity with which we enter into a merger or similar corporate transaction will not reduce the shares available for grant under the Plan. The maximum number of shares of our common stock that may be subject to one or more awards granted to any non-employee director for services as a director pursuant to the Plan during any calendar year will be 60,168, provided that that a non-employee director may be granted awards under the Plan for services as a director for any one year in excess of such amount if the total awards granted to the director under the Plan for services as a director in the year do not have a grant date fair value, as determined in accordance with FASB ASC Topic 718 (or any successor thereto) in excess of $1,000,000.

Awards. The Plan provides for the grant of stock options, including incentive stock options, or ISOs, and nonqualified stock options, or NSOs, restricted stock, dividend equivalents, stock payments, restricted stock units, or RSUs, performance shares, other incentive awards, stock appreciation rights, or SARs, and cash awards. No determination has been made as to the types or amounts of awards that will be granted to specific individuals pursuant to the Plan. Certain awards under the Plan may constitute or provide for a deferral of compensation, subject to Section 409A of the Code, which may impose additional requirements on the terms and conditions of such awards. All awards under the Plan will be set forth in award agreements, which will detail all terms and conditions of the awards, including any applicable vesting and payment terms and post-termination exercise limitations. Awards other than cash awards generally will be settled in shares of our common stock, but the plan administrator may provide for cash settlement of any award. A brief description of each award type follows.

Stock Options. Stock options provide for the purchase of shares of our common stock in the future at an exercise price set on the grant date. ISOs, by contrast to NSOs, may provide tax deferral beyond exercise and favorable capital gains tax treatment to their holders if certain holding period and other requirements of the Code are satisfied. The exercise price of a stock option will generally not be less than 100% of the fair market value of the underlying share on the date of grant (or 110% in the case of ISOs granted to certain significant

Table of Contents

stockholders), except with respect to certain substitute options granted in connection with a corporate transaction. The term of a stock option may not be longer than ten years (or five years in the case of ISOs granted to certain significant stockholders). Vesting conditions determined by the plan administrator may apply to stock options and may include continued service, performance and/or other conditions.

SARs. SARs entitle their holder, upon exercise, to receive from us an amount equal to the appreciation of the shares subject to the award between the grant date and the exercise date. The exercise price of a SAR will generally not be less than 100% of the fair market value of the underlying share on the date of grant (except with respect to certain substitute SARs granted in connection with a corporate transaction) and the term of a SAR may not be longer than ten years. Vesting conditions determined by the plan administrator may apply to SARs and may include continued service, performance and/or other conditions.

Restricted Stock, RSUs and Performance Shares. Restricted stock is an award of nontransferable shares of our common stock that remain forfeitable unless and until specified conditions are met, and which may be subject to a purchase price. RSUs are contractual promises to deliver shares of our common stock in the future, which may also remain forfeitable unless and until specified conditions are met. Delivery of the shares underlying RSUs may be deferred under the terms of the award or at the election of the participant, if the plan administrator permits such a deferral. Performance shares are contractual rights to receive a range of shares of our common stock in the future based on the attainment of specified performance goals, in addition to other conditions which may apply to these awards. Conditions applicable to restricted stock, RSUs and performance shares may be based on continuing service, the attainment of performance goals and/or such other conditions as the plan administrator may determine.

Stock Payments, Other Incentive Awards and Cash Awards. Stock payments are awards of fully vested shares of our common stock that may, but need not, be made in lieu of base salary, bonus, fees or other cash compensation otherwise payable to any individual who is eligible to receive awards. Other incentive awards are awards other than those enumerated in this summary that are denominated in, linked to or derived from shares of our common stock or value metrics related to our shares, and may remain forfeitable unless and until specified conditions are met. Cash awards are cash incentive bonuses subject to performance goals.

Dividend Equivalents. Dividend equivalents represent the right to receive the equivalent value of dividends paid on shares of our common stock and may be granted alone or in tandem with awards. Dividend equivalents are credited as of dividend record dates during the period between the date an award is granted and the date such award vests, is exercised, is distributed or expires, as determined by the plan administrator.

Performance Awards. Performance awards include any of the foregoing awards that are granted subject to vesting and/or payment based on the attainment of specified performance goals or other criteria the plan administrator may determine, which may or may not be objectively determinable. Performance criteria upon which performance goals are established by the plan administrator may include but are not limited to: (i) net earnings (either before or after one or more of (A) interest, (B) taxes, (C) depreciation and (D) amortization); (ii) gross or net sales or revenue; (iii) net income (either before or after taxes); (iv) adjusted net income; (v) operating earnings or profit; (vi) cash flow (including, but not limited to, operating cash flow and free cash flow); (vii) return on assets; (viii) return on capital; (ix) return on stockholders equity; (x) total stockholder return; (xi) return on sales; (xii) gross or net profit or operating margin; (xiii) costs; (xiv) expenses; (xv) working capital; (xvi) earnings per share; (xvii) adjusted earnings per share; (xviii) price per share; (xix) regulatory body approval for commercialization of a product; (xx) implementation, completion or attainment of objectives relating to research, development, regulatory, commercial, or strategic milestones or developments; (xxi) market share; (xxii) economic value; (xxiii) revenue and (xxiv) revenue growth.

Section 162(m) of the Code imposes a $1,000,000 cap on the compensation deduction that a public company may take in respect of compensation paid to our covered employees (which should include our Chief Executive Officer and our next three most highly compensated employees other than our Chief Financial Officer), but excludes from the calculation of amounts subject to this limitation any amounts that constitute QPBC. Under current tax law, we do not expect Section 162(m) of the Code to apply to certain awards under the Plan until the earliest to occur of (1) our annual stockholders meeting at which members of our board of directors are to be elected that occurs after

Table of Contents

the close of the third calendar year following the calendar year in which occurred the first registration of our equity securities under Section 12 of the Exchange Act; (2) a material modification of the Plan; (3) an exhaustion of the share supply under the Plan; or (4) the expiration of the Plan. However, QPBC performance criteria may be used with respect to performance awards that are not intended to constitute QPBC. In addition, the company may issue awards that are not intended to constitute QPBC even if such awards might be non-deductible as a result of Section 162(m) of the Code.

In order to constitute QPBC under Section 162(m) of the Code, in addition to certain other requirements, the relevant amounts must be payable only upon the attainment of pre-established, objective performance goals set by our compensation committee and linked to stockholder-approved performance criteria. For purposes of the Plan, one or more of the following performance criteria will be used in setting performance goals applicable to QPBC, and may be used in setting performance goals applicable to other performance awards:

Certain Transactions. The plan administrator has broad discretion to take action under the Plan, as well as make adjustments to the terms and conditions of existing and future awards, to prevent the dilution or enlargement of intended benefits and facilitate necessary or desirable changes in the event of certain transactions and events affecting our common stock, such as stock dividends, stock splits, mergers, acquisitions, consolidations and other corporate transactions. In addition, in the event of certain non-reciprocal transactions with our stockholders known as equity restructurings, the plan administrator will make equitable adjustments to the Plan and outstanding awards. In the event of a change in control of our company (as defined in the Plan), to the extent that the surviving entity declines to continue, convert, assume or replace outstanding awards, then all such awards may become fully vested and exercisable in connection with the transaction. Upon or in anticipation of a change of control, the plan administrator may cause any outstanding awards to terminate at a specified time in the future and give the participant the right to exercise such awards during a period of time determined by the plan administrator in its sole discretion. Individual award agreements may provide for additional accelerated vesting and payment provisions.

Foreign Participants, Claw-Back Provisions, Transferability, and Participant Payments. The plan administrator may modify award terms, establish subplans and/or adjust other terms and conditions of awards, subject to the share limits described above. All awards will be subject to the provisions of any claw-back policy implemented by our company to the extent set forth in such claw-back policy and/or in the applicable award agreement. With limited exceptions for estate planning, domestic relations orders, certain beneficiary designations and the laws of descent and distribution, awards under the Plan are generally non-transferable prior to vesting, and are exercisable only by the participant. With regard to tax withholding, exercise price and purchase price obligations arising in connection with awards under the Plan, the plan administrator may, in its discretion, accept cash or check, shares of our common stock that meet specified conditions, a market sell order or such other consideration as it deems suitable.

Plan Amendment, Repricing and Termination. Our board of directors may amend or terminate the Plan at any time; however, except in connection with certain changes in our capital structure, stockholder approval will be required for any amendment that increases the number of shares available under the Plan. The plan administrator will have the authority, without the approval of our stockholders, to amend any outstanding stock option or SAR to reduce its price per share. No award may be granted pursuant to the Plan after the tenth anniversary of the date on which our board of directors adopts the Plan.

2010 Equity Incentive Plan

Our board of directors and stockholders initially adopted our 2010 Equity Incentive Plan, or the 2010 Plan, on December 23, 2010, and the 2010 Plan was subsequently amended to increase the number of shares available for issuance under it on October 28, 2011, September 5, 2012 and December 22, 2012.

Following the effectiveness of the Plan, we will not make any further grants under the 2010 Plan. However, the 2010 Plan will continue to govern the terms and conditions of the outstanding awards granted under the 2010 Plan. As discussed above, shares of our common stock that are forfeited or lapse unexercised and which following the effective date of the Plan are not issued under the 2010 Plan will be available for issuance under the Plan.

Table of Contents

Share Reserve. During the term of the 2010 Plan, we reserved an aggregate of 2,166,064 shares of our common stock for issuance under the plan.

Administration. Our board of directors administers the 2010 Plan and has the authority to determine recipients of awards and the terms of awards granted under the 2010 Plan, construe and interpret the 2010 Plan, exercise powers and authority consistent with the 2010 Plan as the board deems necessary or expedient to promote the best interests of the company and its stockholders and delegate authority under the 2010 Plan to a committee of two or more members of the board of directors. Following the effectiveness of this offering, administrative authority under of 2010 Plan will generally be delegated to the compensation committee of our board of directors.

Types of Awards. The 2010 Plan provides for the grant of non-qualified and incentive stock options, stock bonuses, restricted stock and other stock awards to directors, employees and consultants of the company or its affiliates. As of the date of this prospectus, awards of incentive stock options, non-qualified stock options and restricted stock are outstanding under the 2010 Plan.

Certain Transactions. If certain changes are made in, or events occur with respect to, our common stock without the receipt of consideration by the company, the 2010 Plan and outstanding awards will be appropriately adjusted in the class, number and, as applicable, exercise price of securities as determined by the plan administrator. In the event of a change in control or other corporate transaction of our company (each as defined in the Plan), the surviving entity may assume, continue or replace outstanding awards. If the surviving entity elects not to assume, continue or replace outstanding awards, any awards which remain unexercised at the time of the transaction will generally terminate and the company s repurchase rights with respect to outstanding awards will generally lapse at or prior to the time of the transaction. Award agreements under the 2010 Plan may provide for accelerated vesting and/or exercisability of awards in connection with a change in control of the company.

Amendment and Termination. The board of directors may terminate, suspend or amend as it deems appropriate the 2010 Plan at any time without the approval of our stockholders, except that stockholder approval of an amendment to the 2010 Plan is required to the extent necessary to satisfy the requirements of Section 422 of the Code.

Table of Contents

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following includes a summary of transactions since our inception in December 2010 to which we have been a party and in which any of our directors, executive officers or, to our knowledge, beneficial owners of more than 5% of our capital stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under Executive and Director Compensation.

Preferred Stock Financings

Series A Convertible Preferred Stock Financing. In December 2010, we issued and sold to investors an aggregate of 9,999,999 shares of our series A convertible preferred stock at a purchase price of $1.00 per share, for aggregate gross consideration of $9,999,999.

Series A-1 Convertible Preferred Stock Financing. In December 2010, we issued and sold to an investor 2,750,000 shares of our series A-1 stock at a purchase price of $2.00 per share, for aggregate gross consideration of $5,500,000.

Series B Convertible Preferred Stock Financing. From November 2011 through February 2012, we issued and sold to investors an aggregate of 5,141,667 shares of our series B convertible preferred stock at a purchase price of $3.00 per share, for aggregate gross consideration of $15,424,998.

Series C Convertible Preferred Stock Financing. From December 2012 through February 2013, we issued and sold to investors an aggregate of 3,043,112 shares of our series C convertible preferred stock at a purchase price of $4.00 per share, for aggregate gross consideration of $12,172,448.

The participants in these convertible preferred stock financings included the following holders of more than 5% of our capital stock or entities affiliated with them. The following table presents the number of shares issued to these related parties in these financings. Each share of convertible preferred stock referenced in the discussion above and the table below is convertible into 0.601685 shares of our common stock.

Participants	Series A Convertible Preferred Stock	Series A-1 Convertible Preferred Stock	Series B Convertible Preferred Stock	Series C Convertible Preferred Stock
5% or Greater Stockholders[1]				
Avalon Ventures IX, L.P.	4,000,000		1,333,333	375,000
Entities affiliated with Cultivian Ventures[2]	1,499,999		500,000	75,000
Entities affiliated with MPM BioVentures V[3]	4,000,000		1,333,333	375,000
RaQualia Pharma Inc.		2,750,000		

(1) Additional details regarding these stockholders and their equity holdings are provided in Principal Stockholders.

(2) Represents shares held by MidPoint Food & Ag Fund, LP and MidPoint Food & Ag Co-Investment Fund, LP.

(3) Represents shares held by MPM BioVentures V, L.P. and MPM Asset Management Investors BV5 LLC.

Some of our directors are associated with our principal stockholders as indicated in the table below:

Director	Principal Stockholder
Jay Lichter, Ph.D.	Avalon Ventures IX, L.P.
Ronald L. Meeusen, Ph.D.	Entities affiliated with Cultivian Ventures, LLC
John Vander Vort, Esq.	Entities affiliated with MPM BioVentures V

Investors Rights Agreement

We have entered into an investors rights agreement with the holders of our convertible preferred stock, including entities with which certain of our directors are affiliated. As of December 31, 2012, the holders of approximately

Table of Contents

13,569,481 shares of our common stock, including the shares of common stock issuable upon the conversion of our convertible preferred stock, are entitled to rights with respect to the registration of their shares under the Securities Act. For a more detailed description of these registration rights, see Description of Capital Stock Registration Rights. The investors rights agreement also provides for a right of first refusal in favor of certain holders of our convertible preferred stock. These holders of our convertible preferred stock have waived their right of first refusal with respect to this offering, and their first refusal rights will terminate upon consummation of this offering.

Stockholders Agreement

We have entered into a stockholders agreement with the holders of our convertible preferred stock and the holders of our common stock. The stockholders agreement provides for certain voting rights and restrictions on transfer. Upon the closing of this offering, these voting rights and restrictions on transfer will terminate. For a description of the stockholders agreement, see the section of this prospectus entitled Management Composition of the Board of Directors Voting Arrangements.

Office Lease

We lease our corporate headquarters, which are located in an office building in Kansas City, Kansas, from MPM Heartland House LLC. Steven St. Peter, M.D., our President and Chief Executive Officer, holds 99.99% of the outstanding membership interests of this entity. The aggregate rent and fees paid pursuant to our agreements with MPM Heartland House LLC was $8,000 for fiscal 2011, approximately $26,000 for fiscal 2012, and approximately $13,500 for the period from January 2013 through April 2013. In May 2013, we entered into a lease with MPM Heartland House LLC for our corporate headquarters covering the period from May 1, 2013 to September 30, 2015. The rent payable under the lease is $63,000 per year. We believe the terms of our lease agreement with MPM Heartland House are no less favorable to us than those that we could have obtained from an unaffiliated third party.

Agreements and Transactions with MPM Asset Management LLC

We have entered into three services agreements with MPM Asset Management LLC, or MPM Asset Management. John Vander Vort, Esq., one of our directors, is the chief operating officer and a general partner of MPM Asset Management, and it is an affiliate of MPM BioVentures V, L.P., one of our principal stockholders.

In January 2011, we entered into a services agreement pursuant to which we sublease office space in our corporate headquarters from MPM Asset Management and it provides us with certain office-related services. In May 2013, we entered into a services agreement, which supersedes the January 2011 agreement, pursuant to which we sublease office space in our corporate headquarters from MPM Asset Management and it provides us with certain office-related services for the period beginning on May 1, 2013 and ending on September 30, 2015. This agreement may be terminated by either party for a material breach of any provision of the agreement upon 10 days prior written notice. The fees payable under the agreement are $5,600 per month during the period from May 1, 2013 through September 30, 2015. In February 2013, we entered into an administrative services agreement pursuant to which we sublease our corporate office space in Boston, Massachusetts from MPM Asset Management and it provides us with certain office-related services. In February 2013, we also entered into a services agreement with MPM Asset Management and John Vander Vort, one of our directors, pursuant to which Mr. Vander Vort serves as a consultant to us with respect to the management of our legal processes and outside law firms. We believe the terms of our agreements with MPM Asset Management are no less favorable to us than those that we could have obtained from an unaffiliated third party. We or MPM Asset Management may terminate these agreements for any reason or for no reason upon 30 days prior written notice.

The aggregate rent and fees paid pursuant to our service agreements with MPM Asset Management were approximately $50,000 in each of 2011 and 2012, and are expected to be approximately $185,000 in 2013. In addition, we paid MPM Asset Management approximately $304,000 in 2011 for costs incurred in 2010 in connection with our incorporation and our series A convertible preferred stock financing, and for fees related to certain consulting services performed in 2011. In 2012, we paid MPM Asset Management approximately $21,000 for certain consulting services performed in 2012.

Table of Contents

Agreements with RaQualia Pharma Inc.

We have entered into two exclusive license agreements and a development agreement with RaQualia Pharma Inc., or RaQualia, one of our principal stockholders. For more information regarding these agreements, see Business Intellectual Property and License Agreements Exclusive License Agreements with RaQualia.

Employment Agreements

We have entered into employment agreements with our named executive officers. For more information regarding these agreements, see the section in this prospectus entitled Executive and Director Compensation Narrative Disclosure to Compensation Tables.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers prior to the closing of this offering. These agreements, among other things, require us or will require us to indemnify each director (and in certain cases their related venture capital funds) and executive officer to the fullest extent permitted by Delaware law, including indemnification of expenses such as attorneys fees, judgments, fines and settlement amounts incurred by the director or executive officer in any action or proceeding, including any action or proceeding by or in right of us, arising out of the person s services as a director or executive officer.

Policies and Procedures for Related-Person Transactions

Our board of directors has adopted a written related person transaction policy, to be effective upon the consummation of this offering, setting forth the policies and procedures for the review and approval or ratification of related-person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, where the amount involved exceeds $120,000 in any fiscal year and a related person had, has or will have a direct or indirect material interest. In reviewing and approving any such transactions, our audit committee is tasked to consider all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm s length transaction and the extent of the related person s interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

Table of Contents

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of March 31, 2013 by:

- each of our named executive officers;
- each of our directors;
- all of our executive officers and directors as a group; and
- each person known by us to beneficially own more than 5% of our common stock.

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC. Under these rules, beneficial ownership includes any shares as to which a person has sole or shared voting power or investment power. Applicable percentage ownership is based on 14,511,667 shares of common stock outstanding, which includes 1,021,578 shares of restricted stock that are not considered outstanding for accounting purposes, on March 31, 2013, and assumes the conversion of all outstanding shares of convertible preferred stock into an aggregate of 12,596,115 shares of common stock. Such numbers do not include shares of common stock to be issued upon the consummation of this offering to holders of our series A, B, and C convertible preferred stock as payment of accumulated and unpaid dividends. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options, warrants or other rights held by such person that are currently exercisable or will become exercisable within 60 days of March 31, 2013 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed below is 1901 Olathe Blvd., Kansas City, Kansas 66103. We believe, based on information provided to us, that each of the stockholders listed below has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

Certain of our executive officers and directors or their affiliates, including Avalon Ventures IX, L.P., entities affiliated with Cultivian Ventures and MPM BioVentures V, have indicated an interest in purchasing an aggregate of approximately $7.75 million in shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, these stockholders may determine to purchase fewer shares than they indicate an interest in purchasing or may determine not to purchase any shares in this offering. It is also possible that these stockholders could indicate an interest in purchasing more shares of our common stock. In addition, the underwriters could determine to sell fewer shares to any of these stockholders than the stockholders indicate an interest in purchasing or could determine not to sell any shares to these stockholders. The following table does not reflect any potential purchases by these stockholders or their affiliated entities, which purchases, if any, will increase the percentage of shares owned after the offering of such stockholder from that set forth in the table below.

	Shares Beneficially Owned Prior to Offering		Shares Beneficially Owned After Offering	
Name of Beneficial Owner	**Number**	**Percentage**	**Number**	**Percentage[1]**
5% Stockholders				
Avalon Ventures IX, L.P.[2]	3,443,641	23.73%	3,443,641	17.21%
Entities affiliated with Cultivian Ventures[3]	1,248,494	8.60%	1,248,494	6.24%
Entities affiliated with MPM BioVentures V[4]	3,615,121	24.91%	3,615,121	18.07%
RaQualia Pharma Inc.[5]	1,654,632	11.40%	1,654,632	8.27%
Executive Officers and Directors				
Robert Rip Gerber[6]	15,042	*	15,042	*
Ernst Heinen, Ph.D., D.V.M.[7]	105,294	*	105,294	*
Jay Lichter, Ph.D.[2]	3,443,641	23.73%	3,443,641	17.21%
Louise A. Mawhinney[8]	137,735	*	137,735	*
Ronald L. Meeusen, Ph.D.[3]	1,248,494	8.60%	1,248,494	6.24%
Linda Rhodes, V.M.D., Ph.D.[9]	541,515	3.73%	541,515	2.71%
Steven St. Peter, M.D.[10]	607,349	4.19%	607,349	3.04%
Julia A. Stephanus[11]	132,469	*	132,469	*
Craig Tooman[12]	15,042	*	15,042	*

John Vander Vort, Esq.[13]	3,639,188	25.08%	3,639,188	18.19%
All executive officers and directors as a group (10 persons)	9,885,769	67.72%	9,885,769	49.19%

Table of Contents

* Less than 1%.

(1) Assumes no exercise by the underwriters of their option to purchase additional shares of our common stock.

(2) Represents (i) 3,434,616 shares of common stock held by Avalon Ventures IX, L.P., (ii) 376 shares of common stock held by Avalon Ventures IX Management, LLC and (iii) 8,649 shares of restricted stock held by Avalon Ventures IX Management, LLC, all of which will be unvested within 60 days of March 31, 2013. Jay Lichter is the manager of Avalon Ventures IX Management, LLC and shares voting and dispositive power over the shares held by it. Kevin Kinsella, Stephen Tomlin, Richard Levandov, Brady Bohrmann, Doug Downs and Jay Lichter are managing directors of Avalon Ventures IX, L.P. and share voting and dispositive power over the shares held by it. Each disclaims beneficial ownership of the securities reported herein except to the extent of his respective pecuniary interest therein. The address for Avalon Ventures IX Management, LLC and Avalon Ventures IX, L.P. is c/o Avalon Ventures, 1134 Kline Street, La Jolla, CA 92037.

(3) Consists of (i) 1,135,880 shares of common stock held by MidPoint Food & Ag Fund, LP and (ii) 112,614 shares of common stock held by MidPoint Food & Ag Co-Investment Fund, LP. Cultivian Ventures, LLC is the general partner of MidPoint Food & Ag Fund, LP and MidPoint Food & Ag Co-Investment Fund, LP. Ronald L. Meeusen and Andrew M. Ziolkowski are the managing members of Cultivian Ventures, LLC and have shared power to vote, hold and dispose of the shares held by it. Each disclaims beneficial ownership of the securities reported herein except to the extent of his respective pecuniary interest therein. The address for each of MidPoint Food & Ag Fund, LP and MidPoint Food & Ag Co-Investment Fund, LP is 11550 N. Meridian Street, Suite 310, Carmel, IN 46032.

(4) Consists of (i) 3,479,933 shares of common stock held by MPM BioVentures V, L.P. and (ii) 135,188 shares of common stock held by MPM Asset Management Investors BV5 LLC. MPM BioVentures V GP, LLC, or MPM V GP, is the general partner of MPM BioVentures V, L.P. MPM BioVentures V LLC, or MPM V LLC, is the managing member of MPM V GP and MPM Asset Management Investors BV5 LLC. Luke Evnin, Todd Foley, Ansbert Gadicke, Vaughn Kailian, James Scopa and John Vander Vort are the members of MPM V LLC and have shared power to vote, hold and dispose of the shares held by MPM BioVentures V, L.P. and MPM Asset Management Investors BV5 LLC. Each disclaims beneficial ownership of the securities reported herein except to the extent of his respective pecuniary interest therein. The address for funds managed by MPM V LLC is 200 Clarendon St., 54th Floor, Boston, MA 02116.

(5) RaQualia Pharma Inc. is a JASDAQ-listed company organized under the laws of Japan and exercises voting and investment control over the shares held by it. The address for RaQualia Pharma Inc. is 5-2 Taketoyo, Aichi 470-2341, Japan.

(6) Consists of 15,042 shares of common stock issued upon early exercise of options, all of which will be unvested within 60 days of March 31, 2013.

(7) Consists of 105,294 shares of common stock issued upon early exercise of options, all of which will be unvested within 60 days of March 31, 2013.

(8) Represents (i) 7,521 shares of common stock held directly, (ii) 42,971 shares of restricted stock, all of which will be unvested within 60 days of March 31, 2013, and (ii) 87,243 shares of common stock issuable upon exercise of an option that is exercisable within 60 days of March 31, 2013.

(9)

Consists of (i) 456,904 shares of common stock held directly and (ii) 84,611 shares of common stock issued upon early exercise of options, all of which will be unvested within 60 days of March 31, 2013. In May 2013, Dr. Rhodes transferred to a trust established for the benefit of her son 75,210 shares of common stock held directly. Dr. Rhodes does not have the power to vote or dispose of the shares held by such trust.

(10) Represents (i) 75,210 shares of common stock held directly, (ii) 11,281 shares of common stock held by Vie Venture LLC, a Delaware limited liability company of which Dr. St. Peter is the sole manager, (iii) 347,239 shares of restricted stock, all of which will be unvested within 60 days of March 31, 2013, and (iv) 173,619 shares of common stock issued upon early exercise of options, all of which will be unvested within 60 days of March 31, 2013. In May 2013, Dr. St. Peter transferred to Vie Venture LLC 75,210 shares of common stock held by him directly and transferred interests in Vie Venture LLC to members of his family. He continues to have the sole power to vote, hold and dispose of the shares held by Vie Venture LLC.

(11) Consists of (i) 2,256 shares of common stock held directly, (ii) 43,404 shares of restricted stock, all of which will be unvested within 60 days of March 31, 2013, and (iii) 86,809 shares of common stock issued upon early exercise of options, all of which will be unvested within 60 days of March 31, 2013.

Table of Contents

(12) Consists solely of 15,042 shares of common stock issuable upon exercise of an option that is exercisable within 60 days of March 31, 2013.

(13) Consists of 1,003 shares of common stock held directly and 23,064 shares of restricted stock held by John Vander Vort, Esq., all of which will be unvested within 60 days of March 31, 2013, and the shares identified in footnote (4) above. Mr. Vander Vort disclaims beneficial ownership of the shares identified in footnote (4) except to the extent of his pecuniary interest therein. The address for Mr. Vander Vort is 200 Clarendon St., 54th Floor, Boston, MA 02116.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

General

Following the closing of this offering, our authorized capital stock will consist of 100,000,000 shares of common stock, par value $0.001 per share, and 10,000,000 shares of preferred stock, par value $0.001 per share. The following description of our capital stock and provisions of our restated certificate of incorporation and amended and restated bylaws are summaries and are qualified in their entirety by reference to the certificate of incorporation and bylaws that will be effective at the closing of this offering. Copies of these documents have been filed with the Securities and Exchange Commission as exhibits to our registration statement, of which this prospectus forms a part. The description of our common stock reflects changes to our capital structure that will occur upon the closing of this offering.

Common Stock

As of March 31, 2013, there were 15,131,344 shares of our common stock outstanding, which includes 1,021,578 shares of restricted stock that are not outstanding for accounting purposes, and held of record by 59 stockholders, assuming (1) the automatic conversion of all outstanding shares of our convertible preferred stock into 12,596,115 shares of common stock, which we expect to automatically occur immediately prior to the closing of this offering and (2) the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock immediately prior to the closing of this offering in satisfaction of accumulated and unpaid dividends, as required by the terms of our series A, B and C convertible preferred stock, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed offering price of $6.00 per share. As of June 21, 2013, the aggregate accumulated and unpaid dividends on the series A, B and C convertible preferred stock amounted to approximately $4,446,332, and we incur an additional approximately $8,876 in accumulated and unpaid dividends each day. To estimate the number of shares that will be issued at the closing of this offering in satisfaction of accumulated and unpaid dividends, you must divide the aggregate accumulated and unpaid dividend amount as of the closing date by the initial public offering price. The aggregate accumulated and unpaid dividend amount can be determined by multiplying $8,876 by the number of days during the period beginning after June 21, 2013 and ending on the date prior to the closing date and then adding that to $4,446,332.

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends that may be declared by our board of directors, subject to any preferential dividend rights of any series of preferred stock that we may designate and issue in the future.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are, and the shares offered by us in this offering will be, when issued and paid for, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

Under the terms of our certificate of incorporation that will be effective at the closing of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

Table of Contents

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions or licensings, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

Options and Restricted Stock Awards

As of March 31, 2013, options to purchase an aggregate of 508,981 shares of our common stock at a weighted average exercise price of $0.30 per share were outstanding.

Registration Rights

As of March 31, 2013, holders of 13,569,481 shares of our common stock, which includes 12,596,115 shares issuable upon the automatic conversion of convertible preferred stock and the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock upon the closing of this offering in satisfaction of accumulated and unpaid dividends, as required by the terms of our series A, B and C convertible preferred stock, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed initial public offering price per share of $6.00, will be entitled to the following rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to a second amended and restated investors rights agreement by and among us and certain of our stockholders. The registration of shares of common stock as a result of the following rights being exercised would enable holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective.

Demand Registration Rights

If at any time beginning six months after this offering the holders of at least a majority of the registrable securities request in writing that we effect a registration with respect to their shares in an offering with an anticipated aggregate offering price of at least $5,000,000, we may be required to register their shares. We are obligated to effect at most two registrations for the holders of registrable securities in response to these demand registration rights. If the holders requesting registration intend to distribute their shares by means of an underwriting, the managing underwriter of such offering will have the right to limit the numbers of shares to be underwritten for reasons related to the marketing of the shares.

Piggyback Registration Rights

If at any time after this offering we propose to register any shares of our common stock under the Securities Act, subject to certain exceptions, the holders of registrable securities will be entitled to notice of the registration and to include their shares of registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

Form S-3 Registration Rights

If at any time after we become entitled under the Securities Act to register our shares on Form S-3 a holder of registrable securities requests in writing that we register their shares for public resale on Form S-3 and the reasonably anticipated price to the public of the offering is $1,000,000 or more, we will be required to use our best efforts to effect such registration; provided, however, that we will not be required to effect such a registration if, within the preceding 12 months, we have already effected two registrations on Form S-3 for the holders of registrable securities.

Table of Contents

Expenses

Ordinarily, other than underwriting discounts and commissions, we will be required to pay all expenses incurred by us related to any registration effected pursuant to the exercise of these registration rights. These expenses may include all registration and filing fees, printing expenses, fees and disbursements of our counsel, reasonable fees and disbursements of a single special counsel for the selling securityholders, blue sky fees and expenses and the expenses of any special audits incident to the registration.

Termination of Registration Rights

The registration rights terminate upon the earlier of five years after completion of this offering, or, with respect to the registration rights of an individual holder, when the holder can sell all of such holder s registrable securities in any three-month period without registration, in compliance with Rule 144 of the Securities Act.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Certain provisions of Delaware law and our restated certificate of incorporation and amended and restated bylaws that will be effective at the completion of this offering contain provisions that could have the effect of delaying or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our board of directors. We believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Certificate of Incorporation and Bylaws

Our restated certificate of incorporation and amended and restated bylaws that will be effective at the completion of this offering include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, up to 10,000,000 shares of undesignated preferred stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the Chairman of the Board, the Chief Executive Officer or the President;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- provide that directors may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding stock entitled to vote;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- establish that our board of directors is divided into three classes, Class I, Class II, and Class III, with each class serving staggered terms;
- specify that no stockholder is permitted to cumulate votes at any election of the board of directors; and
- require a super majority of votes to amend certain of the above-mentioned provisions.

Table of Contents

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not for determining the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers of the corporation, and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

In this context, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation s outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may discourage business combinations or other attempts that might result in a premium over the market price for the shares of common stock held by our stockholders.

The provisions of Delaware law and our restated certificate of incorporation and amended and restated bylaws that will be effective at the completion of this offering could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be American Stock Transfer & Trust Company, LLC.

NASDAQ Global Market

Our common stock has been approved for listing on The NASDAQ Global Market under the symbol PETX.

Table of Contents

DESCRIPTION OF INDEBTEDNESS

In March 2013, we entered into a loan and security agreement, or credit facility, with Square 1 Bank, as lender. The credit facility provides for an initial term loan of $5.0 million in principal and additional term loans not to exceed $5.0 million in principal. The additional term loans are available to us through March 4, 2014 upon our request and subject to our receipt of at least $20.0 million in proceeds from an initial public offering of our common stock, the sale or issuance of our equity securities in a private transaction, or a corporate partnership, and other customary conditions. The term loans are to be used to supplement our growth capital needs and for general corporate purposes, and all loans funded under the credit facility mature on March 4, 2016. The credit facility is secured by substantially all of our personal property other than our intellectual property. Pursuant to the terms of the credit facility, we are not permitted to encumber, or grant a security interest in, our intellectual property. At April 30, 2013, total borrowings under the credit facility were $5.0 million.

We are obligated to make only interest payments on any loans funded under the credit facility until March 4, 2014. Thereafter, we are obligated to pay 24 consecutive equal monthly installments of principal and interest through March 4, 2016. Prior to March 4, 2014, the loans under the credit facility bear interest at a variable annual rate equal to the greater of (i) the prime rate then in effect plus 2.25% or (ii) 5.50%. On or after March 4, 2014, the loans under the credit facility bear interest at a fixed annual rate equal to the greater of (i) prime rate in effect on March 4, 2014 plus 2.25% or (ii) 5.50%.

We are obligated to pay a success fee of up to $250,000 if we close a sale of substantially all of our assets or capital stock, or consummate a reorganization where 100% of our current voting stockholders hold less than 50% of our voting securities after such transaction.

The credit facility includes restrictions on, among other things, our ability to incur additional indebtedness, pay dividends in cash or make other distributions in cash, make certain investments, create liens, sell assets, make loans and make capital expenditures. The credit facility requires that, from March 4, 2013 through December 31, 2013, the cash we maintain at Square 1 Bank plus the cash available under our credit facility equals an amount that is at least four times the amount of our monthly cash burn, and that we maintain a liquidity ratio of at least one-to-one beginning January 1, 2014. At April 30, 2013, we were in compliance with all financial covenants.

The credit facility also includes events of defaults, the occurrence and continuation of any of which provide Square 1 Bank the right to exercise remedies against us and the collateral securing the loans under the credit facility, including our cash. These events of default include, among other things, our failure to pay any amounts due under the credit facility, our insolvency, the occurrence of a material adverse effect, the occurrence of any default under certain other indebtedness and a final judgment against us in an amount greater than $350,000.

Table of Contents

SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there was no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock. Although our common stock has been approved for listing on The NASDAQ Global Market, we cannot assure you that there will be an active public market for our common stock.

Based on the number of shares of our common stock outstanding as of March 31, 2013, including 1,021,578 shares of restricted stock that are not considered outstanding for accounting purposes, and assuming (1) the issuance of 5,500,000 shares in this offering, (2) the conversion of all outstanding shares of our convertible preferred stock into 12,596,115 shares of our common stock, which we expect to automatically occur immediately prior to the closing of the offering, (3) the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock upon the closing of this offering in satisfaction of accumulated and unpaid dividends, as required by the terms of our Series A, B and C convertible preferred stock, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed initial public offering price per share of $6.00, (4) no exercise of the underwriters option to purchase additional shares of common stock, and (5) no exercise of outstanding options, we will have outstanding an aggregate of approximately 20,631,344 shares of common stock.

Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our affiliates, as that term is defined in Rule 144 under the Securities Act. Shares purchased by our affiliates would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining 15,131,344 shares of common stock will be restricted securities, as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or 701 under the Securities Act, each of which is summarized below. We expect that substantially all of these securities will be subject to the 180-day lock-up period under the lock-up agreements described below.

In addition, of the 508,981 shares of our common stock that were subject to stock options outstanding as of March 31, 2013, options to purchase 286,864 of such shares of common stock were vested as of such date and, upon exercise, these shares will be eligible for sale subject to the lock up agreements described below and Rules 144 and 701 under the Securities Act.

Lock-Up Agreements

We and each of our directors and executive officers and holders of substantially all of our outstanding capital stock, who collectively own 15,131,344 shares of our common stock, based on shares outstanding as of March 31, 2013, have agreed that we and they will not, subject to limited exceptions that are described in more detail in the section in this prospectus entitled Underwriting, during the period ending 180 days after the date of this prospectus:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open put equivalent position within the meaning of Rule 16a-l(h) under the Exchange Act; or
- otherwise dispose of any shares of our common stock, options or warrants to acquire shares of our common stock, or securities exchangeable or exercisable for or convertible into shares of our common stock, currently or hereafter owned either of record or beneficially; or
- publicly announce an intention to do any of the foregoing.

Stifel, Nicolaus & Company, Incorporated and Lazard Capital Markets LLC may, in their sole discretion and at any time or from time to time before the termination of the 180-day period, without public notice, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the underwriters and any of our shareholders who will execute a lock-up agreement providing consent to the sale of shares prior to the expiration of the restricted period.

Table of Contents

Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

Rule 144

Affiliate Resales of Restricted Securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell in broker s transactions or certain riskless principal transactions or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 206,313 shares immediately after this offering; or
- the average weekly trading volume in our common stock on The NASDAQ Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of $50,000, the seller must file a notice on Form 144 with the Securities and Exchange Commission and The NASDAQ Global Market concurrently with either the placing of a sale order with the broker or the execution of a sale directly with a market maker.

Non-Affiliate Resales of Restricted Securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us. If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

Rule 701

In general, under Rule 701, any of an issuer s employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

Equity Plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under our stock plans. We expect to file the registration statement covering shares offered pursuant to our stock plans shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market subject to compliance with the resale provisions of Rule 144.

Table of Contents

Registration Rights

Based on the number of shares of our convertible preferred stock outstanding as of March 31, 2013 and assuming (1) the automatic conversion of all outstanding shares of our convertible preferred stock into 12,596,115 shares of our common stock immediately prior to the closing of the offering, and (2) the issuance of 619,677 shares of common stock to the holders of our series A, B and C convertible preferred stock upon the closing of this offering in satisfaction of accumulated and unpaid dividends, as required by the terms of our series A, B and C convertible preferred stock, assuming for this purpose that the closing of this offering occurred on March 31, 2013 at an assumed initial public offering price per share of $6.00, the holders of 13,569,481 shares of common stock or their transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act upon the closing of this offering. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See Description of Capital Stock Registration Rights for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.

Table of Contents

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS OF OUR COMMON STOCK

The following discussion is a summary of the material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local or foreign tax laws are not discussed. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service, or IRS, in effect as of the date of this offering. These authorities may change or be subject to differing interpretations. Any such change may be applied retroactively in a manner that could adversely affect a non-U.S. holder of our common stock. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position regarding the tax consequences of the purchase, ownership and disposition of our common stock.

This discussion is limited to non-U.S. holders that hold our common stock as a capital asset within the meaning of Section 1221 of the Code (property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a non-U.S. holder s particular circumstances, including the impact of the unearned income Medicare contribution tax. In addition, it does not address consequences relevant to non-U.S. holders subject to particular rules, including, without limitation:

- U.S. expatriates and certain former citizens or long-term residents of the United States;
- persons subject to the alternative minimum tax;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- real estate investment trusts or regulated investment companies;
- brokers, dealers or traders in securities;
- controlled foreign corporations, passive foreign investment companies, and corporations that accumulate earnings to avoid U.S. federal income tax;
- S corporations, partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes;
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation; and
- tax-qualified retirement plans.

If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding our common stock and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATION PURPOSES ONLY AND IS NOT INTENDED AS TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Table of Contents

Definition of a Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is neither a U.S. person nor a partnership for United States federal income tax purposes. A U.S. person is any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof, or the District of Columbia;
- an estate, the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more United States persons (within the meaning of Section 7701(a)(30) of the Code), or (2) has made a valid election under applicable Treasury Regulations to continue to be treated as a United States person.

Distributions

As described in the section entitled Dividend Policy, we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, if we do make distributions on our common stock, such distributions of cash or property on our common stock will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a non-U.S. holder s adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below in the section relating to the sale or disposition of our common stock.

Subject to the discussion below on backup withholding and foreign accounts, dividends paid to a non-U.S. holder of our common stock that are not effectively connected with the non-U.S. holder s conduct of a trade or business within the United States will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty).

Non-U.S. holders will be entitled to a reduction in or an exemption from withholding on dividends as a result of either (a) an applicable income tax treaty or (b) the non-U.S. holder holding our common stock in connection with the conduct of a trade or business within the United States and dividends being paid in connection with that trade or business. To claim such a reduction in or exemption from withholding, the non-U.S. holder must provide the applicable withholding agent with a properly executed (a) IRS Form W-8BEN claiming an exemption from or reduction of the withholding tax under the benefit of an income tax treaty between the United States and the country in which the non-U.S. holder resides or is established, or (b) IRS Form W-8ECI stating that the dividends are not subject to withholding tax because they are effectively connected with the conduct by the non-U.S. holder of a trade or business within the United States, as may be applicable. These certifications must be provided to the applicable withholding agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide the applicable withholding agent with the required certification, but that qualify for a reduced rate under an applicable income tax treaty, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Subject to the discussion below on backup withholding and foreign accounts, if dividends paid to a non-U.S. holder are effectively connected with the non-U.S. holder s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such dividends are attributable), then, although exempt from U.S. federal withholding tax (provided the non-U.S. holder provides appropriate certification, as described above), the non-U.S. holder will be subject to U.S. federal income tax on such dividends on a net income basis at the regular graduated U.S. federal income tax rates. In addition, a non-U.S. holder that is a corporation may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on its effectively connected earnings and

Table of Contents

profits for the taxable year that are attributable to such dividends, as adjusted for certain items. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

Sale or Other Taxable Disposition

Subject to the discussions below on backup withholding and foreign accounts, a non-U.S. holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the non-U.S. holder maintains a permanent establishment in the United States to which such gain is attributable);
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our common stock constitutes a U.S. real property interest, or USRPI, by reason of our status as a U.S. real property holding corporation, or USRPHC, for U.S. federal income tax purposes.

Gain described in the first bullet point above will generally be subject to U.S. federal income tax on a net income basis at the regular graduated U.S. federal income tax rates. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

A non-U.S. holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on any gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder (even though the individual is not considered a resident of the United States) provided the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we are not currently and do not anticipate becoming a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our USRPIs relative to the fair market value of our other business assets and our non-U.S. real property interests, however, there can be no assurance we are not a USRPHC or will not become one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a non-U.S. holder of our common stock will not be subject to U.S. federal income tax if such class of stock is regularly traded, as defined by applicable Treasury Regulations, on an established securities market, and such non-U.S. holder owned, actually or constructively, 5% or less of such class of our stock throughout the shorter of the five-year period ending on the date of the sale or other disposition or the non-U.S. holder s holding period for such stock.

Non-U.S. holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

Subject to the discussion below on foreign accounts, a non-U.S. holder will not be subject to backup withholding with respect to payments of dividends on our common stock we make to the non-U.S. holder, provided the applicable withholding agent does not have actual knowledge or reason to know such holder is a United States person and the holder certifies its non-U.S. status, such as by providing a valid IRS Form W-8BEN or W-8ECI, or other applicable certification. However, information returns will be filed with the IRS in connection with any dividends on our common stock paid to the non-U.S. holder, regardless of whether any tax was actually withheld. Copies of these information returns may also be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the non-U.S. holder resides or is established.

Information reporting and backup withholding may apply to the proceeds of a sale of our common stock within the United States, and information reporting may (although backup withholding generally will not) apply to the

Table of Contents

proceeds of a sale of our common stock outside the United States conducted through certain U.S.-related financial intermediaries, in each case, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder on IRS Form W-8BEN or other applicable form (and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. person) or such owner otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder s U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under the Foreign Account Tax Compliance Act, or FATCA, on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign financial institution or a non-financial foreign entity (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any substantial United States owners (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain specified United States persons or United States-owned foreign entities (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on payments to non-compliant foreign financial institutions and certain other account holders.

The withholding provisions described above will generally apply to payments of dividends made on or after January 1, 2014 and to payments of gross proceeds from a sale or other disposition of stock on or after January 1, 2017. Because we may not know the extent to which a distribution is a dividend for U.S. federal income tax purposes at the time it is made, for purposes of these withholding rules we may treat the entire distribution as a dividend. Prospective investors should consult their tax advisors regarding these withholding provisions.

Table of Contents

UNDERWRITING

Subject to the terms and conditions of an underwriting agreement, each of the underwriters named below has severally agreed to purchase from us the aggregate number of shares of common stock set forth opposite their respective names below:

Underwriters	Number of Shares
Stifel, Nicolaus & Company, Incorporated	
Lazard Capital Markets LLC	
William Blair & Company, L.L.C.	
JMP Securities LLC	
Craig-Hallum Capital Group LLC	
Total	5,500,000

The underwriting agreement provides that the obligations of the several underwriters are subject to various conditions, including approval of legal matters by counsel. The nature of the underwriters obligations commits them to purchase and pay for all of the shares of common stock listed above if any are purchased. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The underwriting agreement provides that we will indemnify the underwriters against liabilities specified in the underwriting agreement under the Securities Act, or will contribute to payments that the underwriters may be required to make relating to these liabilities.

The underwriters expect to deliver the shares of common stock to purchasers on or about , 2013.

At our request, the underwriters have reserved up to 5% of the shares to be offered in this offering for sale at the initial public offering price to certain of our directors, officers, existing stockholders, employees, business associates and related persons, in addition to shares that certain of our executive officers and directors or their affiliates have indicated an interest in purchasing as described elsewhere in this prospectus. The number of shares available for sale to the general public will be reduced by the number of directed shares purchased by participants in the program. Any directed shares not purchased will be offered by the underwriters to the general public on the same basis as all other shares offered. We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, in connection with the sale of the directed shares.

Over-Allotment Option

We have granted a 30-day over-allotment option to the underwriters to purchase up to a total of 825,000 additional shares of our common stock from us, at the public offering price, less the underwriting discounts and commissions payable by us, as set forth on the cover page of this prospectus. If the underwriters exercise this option in whole or in part, then each of the underwriters will be separately committed, subject to the conditions described in the underwriting agreement, to purchase the additional shares of our common stock in proportion to their respective commitments set forth in the table above. We will pay the expenses associated with the exercise of the over-allotment option.

Lock-Up Agreements

We and the holders (including all of our directors and executive officers) of a significant majority of the shares of our common stock outstanding prior to this offering have agreed that, without the prior written consent of each of Stifel, Nicolaus & Company, Incorporated and Lazard Capital Markets LLC, we and they will not directly or indirectly:

- offer, sell, contract to sell (including any short sale), pledge, hypothecate, establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Exchange Act, grant any option, right or warrant for

137

Table of Contents

the sale of, purchase any option or contract to sell, sell any option or contract to purchase, or otherwise encumber, dispose of or transfer, or grant any rights with respect to, directly or indirectly, any shares of common stock or securities convertible into or exchangeable or exercisable for any shares of common stock;

enter into a transaction which would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock, whether any such transaction is to be settled by delivery of the common stock or other securities, in cash or otherwise; or

publicly disclose the intention to do any of the foregoing,

for a period of 180 days after the date of this prospectus. However, in the case of our officers, directors and stockholders, these lock-up restrictions will not apply to:

bona fide gifts made by the holder;

the surrender or forfeiture of shares of common stock to us to satisfy tax withholding obligations upon exercise or vesting of stock options or equity awards;

transfers of common stock or any security convertible into or exercisable for common stock to an immediate family member, an immediate family member of a domestic partner or a trust for the benefit of the undersigned, a domestic partner or an immediate family member;

transfers of shares of common stock or any security convertible into or exercisable for common stock to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held exclusively by the holder, a domestic partner and/or one or more family members of the holder or the holder s domestic partner in a transaction not involving a disposition for value;

transfers of shares of common stock or any security convertible into or exercisable for common stock upon death by will or intestate succession;

distributions of shares of common stock or securities convertible into or exercisable for common stock to members, partners or stockholders of the holder;

the exercise of any option, warrant or other right to acquire shares of common stock, the settlement of any stock-settled stock appreciation rights, restricted stock or restricted stock units, or the conversion of any convertible security into our securities;

securities transferred to one or more affiliates of the holder and distributions of securities to partners, members or stockholders of the holder;

transactions relating to securities acquired in open market transactions after the date of this prospectus; or

the entry into a trading plan established pursuant to Rule 10b5-1 under the Securities Exchange Act, provided that such plan does not provide for any sales or other dispositions of shares of common stock during the 180-day restricted period.

Except for transfers related to securities acquired on the open market or in this offering or to the surrender or forfeiture of shares of common stock to us to satisfy tax withholding obligations upon exercise or vesting of stock options or equity awards, as described above, any transferee under the excepted transfers above must agree in writing, prior to the transfer, to be bound by the lock-up agreements.

Additionally, in our case, the lock-up restrictions will not apply to:

shares sold in this offering;

equity based awards granted pursuant to our equity incentive plans referred to in this prospectus, including any amendments to those plans, and shares of common stock issued upon the exercise of any equity based awards;

shares of common stock issued upon the conversion of outstanding securities described in this prospectus;

the filing of a registration statement on Form S-8 relating to register shares issuable pursuant to our equity incentive plans;

shares of common stock issued in satisfaction of the accumulated and unpaid dividend on our series A, B and C convertible preferred stock;

Table of Contents

shares of common stock or any securities convertible into, or exercisable, or exchangeable for, shares of common stock, sold or delivered in connection with any merger, acquisition or strategic investment (including any joint venture, strategic alliance or partnership), collaboration, co-promotion or distribution agreement, or the acquisition or in-licensing of any business, products or technologies, as long as (x) the aggregate number of shares of common stock issued or issuable does not exceed 5% of the number of shares of common stock outstanding immediately after this offering, and (y) each recipient of any such shares or other securities agrees to restrictions on the resale of such securities that are consistent with the lock-up agreements described above.

William Hartfiel III, director of investment banking of Craig-Hallum Capital Group LLC, is a holder of our series C preferred stock and has entered into a lock-up agreement in connection with this offering.

Stifel, Nicolaus & Company, Incorporated and Lazard Capital Markets LLC, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice. When determining whether or not to release common stock and other securities from lock-up agreements, Stifel, Nicolaus & Company, Incorporated and Lazard Capital Markets LLC will consider, among other factors, the holder s reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time.

Determination of Offering Price

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined through negotiations between us and the representatives. In addition to prevailing market conditions, the factors to be considered in determining the initial public offering price will include:

the information set forth in this prospectus and otherwise available to the representatives;
our history and prospects, including our past and present financial performance and our prospects for future earnings;
the history and prospects of companies in our industry;
prior offerings of those companies;
our capital structure;
an assessment of our management and their experience;
general conditions of the securities markets at the time of the offering; and
other factors as we deem relevant.

We cannot assure you that an active or orderly trading market will develop for our common stock or that our common stock will trade in the public markets subsequent to this offering at or above the initial offering price. The assumed initial public offering price set forth on the cover of this preliminary prospectus is subject to change as a result of market conditions and other factors.

Commissions and Expenses

The underwriters propose to initially offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus, and at this price less a concession not in excess of $ per share of common stock to other dealers specified in a master agreement among underwriters who are members of the Financial Industry Regulatory Authority, Inc. The underwriters may allow, and the other dealers specified may reallow, concessions not in excess of $ per share of common stock to these other dealers. After this offering, the offering price, concessions, and other selling terms may be changed by the underwriters. Our common stock is offered subject to receipt and acceptance by the underwriters and to the other conditions, including the right to reject orders in whole or in part.

Table of Contents

The following table summarizes the compensation to be paid to the underwriters by us and the proceeds, before expenses, payable to us:

		Total	
	Per Share	Without Over-Allotment	With Over-Allotment
Public offering price			
Underwriting discounts and commissions			
Proceeds, before expenses, to us			

Pursuant to the terms of the underwriting agreement, we have also agreed to reimburse the underwriters for certain expenses, including reasonable fees and expenses of counsel, relating to certain aspects of this offering that will not exceed $20,000.

We estimate that the total expenses of the offering payable by us, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding underwriting discounts and commissions, will be approximately $2.5 million.

Lazard Freres & Co. LLC referred this transaction to Lazard Capital Markets LLC and will receive a referral fee from Lazard Capital Markets LLC in connection therewith.

Indemnification of Underwriters

We will indemnify the underwriters against certain civil liabilities, including liabilities under the Securities Act and liabilities arising from breaches of our representations and warranties contained in the underwriting agreement. If we are unable to provide this indemnification, we will contribute to payments the underwriters may be required to make in respect of those liabilities.

NASDAQ Market Listing

Our common stock has been approved for listing on The NASDAQ Global Market under the symbol PETX.

Short Sales, Stabilizing Transactions and Penalty Bids

In order to facilitate this offering, persons participating in this offering may engage in transactions that stabilize, maintain, or otherwise affect the price of our common stock during and after this offering. Specifically, the underwriters may engage in the following activities in accordance with the rules of the Securities and Exchange Commission.

Short sales. Short sales involve the sales by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are short sales made in an amount not greater than the underwriters over-allotment option to purchase additional shares from us in this offering. The underwriters may close out any covered short position by either exercising their over-allotment option to purchase shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are any short sales in excess of such over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

Stabilizing transactions. The underwriters may make bids for or purchases of the shares for the purpose of pegging, fixing, or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.

Penalty bids. If the underwriters purchase shares in the open market in a stabilizing transaction or syndicate covering transaction, they may reclaim a selling concession from the underwriters and selling group members who

Table of Contents

sold those shares as part of this offering. Stabilization and syndicate covering transactions may cause the price of the shares to be higher than it would be in the absence of these transactions. The imposition of a penalty bid might also have an effect on the price of the shares if it discourages resales of the shares.

The transactions above may occur on The NASDAQ Global Market or otherwise. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the shares. If these transactions are commenced, they may be discontinued without notice at any time.

Discretionary Sales

The underwriters have informed us that they do not expect to confirm sales of common stock offered by this prospectus to accounts over which they exercise discretionary authority without obtaining the specific approval of the account holder.

Electronic Distribution

A prospectus in electronic format may be made available on the internet sites or through other online services maintained by one or more of the underwriters participating in this offering, or by their affiliates. Other than the prospectus in electronic format, the information on any underwriter s web site and any information contained in any other web site maintained by an underwriter is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter in its capacity as underwriter and should not be relied upon by investors.

Relationships

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their affiliates have in the past provided, and may in the future from time to time provide, investment banking and other financing and banking services to us, for which they have in the past received, and may in the future receive, customary fees and reimbursement for their expenses. In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments.

European Economic Area

In relation to each member state of the European Economic Area that has implemented the Prospectus Directive (each, a relevant member state), with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of securities described in this prospectus may not be made to the public in that relevant member state other than:

- to any legal entity that is authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity that has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;
- to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives; or
- in any other circumstances that do not require the publication of a prospectus pursuant to Article 3 of the Prospectus Directive,

Table of Contents

provided that no such offer of securities shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive. For purposes of this provision, the expression an offer of securities to the public in any relevant member state means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe the securities, as the expression may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each relevant member state.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on their behalf, other than offers made by the underwriters with a view to the final placement of the securities as contemplated in this prospectus. Accordingly, no purchaser of the securities, other than the underwriters, is authorized to make any further offer of the securities on behalf of us or the underwriters.

United Kingdom

This prospectus is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive (Qualified Investors) that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order) or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons). This prospectus and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

France

This prospectus has not been prepared in the context of a public offering of financial securities in France within the meaning of Article L.411-1 of the French Code Monétaire et Financier and Title I of Book II of the Reglement Général of the Autorité des marchés financiers (the AMF) and therefore has not been and will not be filed with the AMF for prior approval or submitted for clearance to the AMF. Consequently, the shares of our common stock may not be, directly or indirectly, offered or sold to the public in France and offers and sales of the shares of our common stock may only be made in France to qualified investors (investisseurs qualifiés) acting for their own, as defined in and in accordance with Articles L.411-2 and D.411-1 to D.411-4, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code Monétaire et Financier. Neither this prospectus nor any other offering material may be released, issued or distributed to the public in France or used in connection with any offer for subscription on sale of the shares of our common stock to the public in France. The subsequent direct or indirect retransfer of the shares of our common stock to the public in France may only be made in compliance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code Monétaire et Financier.

Notice to Residents of Germany

Each person who is in possession of this prospectus is aware of the fact that no German securities prospectus (wertpapierprospekt) within the meaning of the securities prospectus act (wertpapier-prospektgesetz, the *act*) of the federal republic of Germany has been or will be published with respect to the shares of our common stock. In particular, each underwriter has represented that it has not engaged and has agreed that it will not engage in a public offering in the federal republic of Germany (ôffertliches angebot) within the meaning of the act with respect to any of the shares of our common stock otherwise than in accordance with the act and all other applicable legal and regulatory requirements.

Table of Contents

Notice to Residents of Switzerland

The securities which are the subject of the offering contemplated by this prospectus may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. None of this prospectus or any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

None of this prospectus or any other offering or marketing material relating to the offering, us or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of the securities.

Notice to Residents of the Netherlands

The offering of the shares of our common stock is not a public offering in The Netherlands. The shares of our common stock may not be offered or sold to individuals or legal entities in The Netherlands unless (i) a prospectus relating to the offer is available to the public, which has been approved by the Dutch Authority for the Financial Markets (Autoriteit Financiële Markten) or by the competent supervisory authority of another state that is a member of the European Union or party to the Agreement on the European Economic Area, as amended or (ii) an exception or exemption applies to the offer pursuant to Article 5:3 of The Netherlands Financial Supervision Act (Wet op het financieel toezicht) or Article 53 paragraph 2 or 3 of the Exemption Regulation of the Financial Supervision Act, for instance due to the offer targeting exclusively qualified investors (gekwalificeerde beleggers) within the meaning of Article 1:1 of The Netherlands Financial Supervision Act.

Notice to Residents of Japan

The underwriters will not offer or sell any of the shares of our common stock directly or indirectly in Japan or to, or for the benefit of, any Japanese person or to others, for re-offering or re-sale directly or indirectly in Japan or to any Japanese person, except in each case pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law of Japan and any other applicable laws and regulations of Japan. For purposes of this paragraph, *Japanese person* means any person resident in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to Residents of Hong Kong

The underwriters and each of their affiliates have not (1) offered or sold, and will not offer or sell, in Hong Kong, by means of any document, any shares of our common stock other than (a) to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance or (b) in other circumstances which do not result in the document being a prospectus as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance; and (2) issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere any advertisement, invitation or document relating to the shares of our common stock which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares of our common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance and any

Table of Contents

rules made under that Ordinance. The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

Notice to Residents of Singapore

This document has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares of our common stock may not be circulated or distributed, nor may shares of our common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the Securities and Futures Act), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the Securities and Futures Act or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the Securities and Futures Act.

Where shares of our common stock are subscribed or purchased under Section 275 by a relevant person, which is:

(a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares of our common stock under Section 275 except:

(1) to an institutional investor or to a relevant person, or to any person pursuant to an offer that is made on terms that such rights or interest are acquired at a consideration of not less than $200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets;

(2) where no consideration is given for the transfer; or

(3) by operation of law.

Table of Contents

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Latham & Watkins LLP, Boston, Massachusetts. Dechert LLP, Philadelphia, Pennsylvania, has acted as counsel for the underwriters in connection with certain legal matters related to this offering.

EXPERTS

The financial statements as of December 31, 2011 and 2012, and for each of the two years in the period ended December 31, 2012 and, cumulatively, for the period from December 1, 2010 (date of inception) to December 31, 2012 for its statement of changes in convertible preferred stock and stockholders deficit, included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. Upon completion of this offering, we will be required to file periodic reports, proxy statements and other information with the Securities and Exchange Commission pursuant to the Securities Exchange Act of 1934. You may read and copy this information at the Public Reference Room of the Securities and Exchange Commission, 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference rooms by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission also maintains an Internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the Securities and Exchange Commission. The address of that site is *www.sec.gov*.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

INDEX TO FINANCIAL STATEMENTS

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Aratana Therapeutics, Inc.

In our opinion, the accompanying balance sheets and the related statements of operations and comprehensive loss, of changes in convertible preferred stock and stockholders deficit and of cash flows present fairly, in all material respects, the financial position of Aratana Therapeutics, Inc. (a development stage enterprise) at December 31, 2011 and December 31, 2012, and the results of its operations and comprehensive loss and its cash flows for each of the two years in the period ended December 31, 2012 and, cumulatively, for the period from December 1, 2010 (date of inception) to December 31, 2012 for its statement of changes in convertible preferred stock and stockholders deficit, in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States), which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

March 20, 2013, except for the effect of the

reverse stock split as described in Note 18,

as to which the date is May 23, 2013

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

BALANCE SHEETS

(Amounts in thousands, except share and per share data)

	December 31,			Pro Forma
	2011	2012	March 31, 2013 (unaudited)	March 31, 2013 (unaudited)
Assets				
Current assets:				
Cash and cash equivalents	$ 6,002	$ 13,973	$ 19,270	$ 19,270
Short-term marketable securities	6,382	6,382	6,382	6,382
Receivable from stockholder		650		
Prepaid expenses and other current assets	25	25	1,260	1,260
Total current assets	12,409	21,030	26,912	26,912
Property and equipment, net	23	19	23	23
Restricted cash	141	141	141	141
Other long-term assets		32	33	33
Total assets	$ 12,573	$ 21,222	$ 27,109	$ 27,109
Liabilities, Convertible Preferred Stock and Stockholders Equity (Deficit)				
Current liabilities:				
Accounts payable	$ 225	$ 761	$ 2,408	$ 2,408
Accrued expenses	396	1,361	1,014	1,014
Deferred income		800	800	800
Other current liabilities	68	562	604	604
Total current liabilities	689	3,484	4,826	4,826
Loan payable			4,929	4,929
Other long-term liabilities		96	109	109
Total liabilities	689	3,580	9,864	9,864
Commitments and contingencies (Notes 7, 9 and 13)				
Series A convertible preferred stock; $0.001 par value; 10,000,000 shares authorized, 9,999,999 shares issued and outstanding at December 31, 2011 and 2012 and March 31, 2013 (unaudited), respectively; (liquidation preference of $10,809, $11,674 and $11,904 at December 31, 2011 and 2012 and March 31, 2013 (unaudited), respectively); no shares issued or outstanding pro forma at March 31, 2013 (unaudited)	9,951	9,951	9,951	
Series A-1 convertible preferred stock; $0.001 par value; 2,750,000 shares authorized, 2,750,000 shares issued and outstanding at December 31, 2011 and 2012 and March 31, 2013 (unaudited), respectively; (liquidation preference of $5,500 at December 31, 2011 and 2012 and March 31, 2013 (unaudited)); no shares issued or outstanding pro forma at March 31, 2013 (unaudited)	4,662	4,662	4,662	
Series B convertible preferred stock; $0.001 par value; 5,166,667 shares authorized at December 31, 2011 and 2012, 5,141,667 shares authorized at March 31, 2013 (unaudited); 2,570,833 shares issued and outstanding at December 31, 2011, 5,141,667 shares issued and outstanding at December 31, 2012 and March 31, 2013 (unaudited), respectively (liquidation preference of $7,814, $16,691 and $17,011 at December 31, 2011 and 2012 and March 31, 2013 (unaudited), respectively); no shares issued or outstanding pro forma at March 31, 2013 (unaudited)	7,542	15,241	15,241	

Series C convertible preferred stock; $0.001 par value; 3,000,000 and 3,050,000 shares authorized at December 31, 2012 and March 31, 2013 (unaudited), respectively; 2,349,541 and 3,043,112 shares issued and outstanding at December 31, 2012 and March 31, 2013 (unaudited), respectively; (liquidation preference of $9,404 and $12,400 at December 31, 2012 and March 31, 2013 (unaudited) respectively); no shares issued or outstanding pro forma at March 31, 2013 (unaudited)		9,343	12,098	
Stockholders equity (deficit):				
Common stock; $0.001 par value; 20,916,667, 25,016,667 and 25,041,667 shares authorized at December 31, 2011 and 2012 and March 31, 2013 (unaudited), respectively; 300,841 shares, 830,823 shares and 893,974 issued and outstanding at December 31, 2011 and 2012 and March 31, 2013 (unaudited), respectively; 14,109,766 shares issued and outstanding pro forma at March 31, 2013 (unaudited)		1	1	14
Additional paid-in capital	303	654	795	42,734
Deficit accumulated during the development stage	(10,574)	(22,210)	(25,503)	(25,503)
Total stockholders equity (deficit)	(10,271)	(21,555)	(24,707)	17,245
Total liabilities, convertible preferred stock and stockholders equity (deficit)	$ 12,573	$ 21,222	$ 27,109	$ 27,109

The accompanying notes are an integral part of these financial statements.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(Amounts in thousands, except share and per share data)

	Year Ended December 31,		Three Months Ended March 31,		Cumulative Period From Inception (December 1, 2010) to March 31, 2013 (unaudited)
	2011	2012	2012	2013	
			(unaudited)		
Revenue	$	$	$	$	$
Operating expenses					
Research and development	2,196	7,291	1,751	2,114	11,601
General and administrative	1,274	2,987	498	1,226	5,796
In-process research and development		1,500			8,025
Total operating expenses	3,470	11,778	2,249	3,340	25,422
Loss from operations	(3,470)	(11,778)	(2,249)	(3,340)	(25,422)
Other income (expense)					
Interest income	6	21	4	3	30
Interest expense				(24)	(24)
Other income		121		68	189
Total other income (expense)	6	142	4	47	195
Net loss and comprehensive loss	$ (3,464)	$ (11,636)	$ (2,245)	$ (3,293)	$ (25,227)
Modification of Series A convertible preferred stock	(276)				
Unaccreted dividends on convertible preferred stock	(902)	(2,035)	(444)	(773)	
Net loss attributable to common stockholders	$ (4,642)	$ (13,671)	$ (2,689)	$ (4,066)	
Net loss per share attributable to common stockholders, basic and diluted	$ (15.43)	$ (34.53)	$ (8.94)	$ (4.73)	
Weighted average shares outstanding, basic and diluted	300,841	395,918	300,841	860,350	
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)		$ (1.01)		$ (0.24)	
Weighted average shares used in computing pro forma net loss per share attributable to		11,465,054		13,936,333	

common stockholders, basic and diluted
(unaudited)

The accompanying notes are an integral part of these financial statements.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

STATEMENT OF CHANGES IN CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS DEFICIT (Amounts in thousands, except share data)

	Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Series C Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Par Value			
Balance at inception (December 1, 2010)		$		$		$		$		$	$	$	$
Issuance of common stock to founders									300,841		1		1
Issuance of Series A convertible preferred stock, net of issuance cost of $49	9,999,999	9,951											
Issuance of Series A-1 convertible preferred stock, net of issuance cost of $13			2,750,000	4,662									
Net loss												(6,834)	(6,834)
Balance at December 31, 2010	9,999,999	9,951	2,750,000	4,662					300,841		1	(6,834)	(6,833)
Issuance of Series B convertible preferred stock, net of issuance cost of $171					2,570,833	7,542							
Compensation expense related to stock options											26		26
Modification of Series A convertible preferred stock											276	(276)	
Net loss												(3,464)	(3,464)
Balance at December 31, 2011	9,999,999	9,951	2,750,000	4,662	2,570,833	7,542			300,841		303	(10,574)	(10,271)

Issuance of Series B Convertible Preferred Stock, net of issuance cost of $13					2,570,834	7,699								
Issuance of Series C Convertible Preferred Stock, net of issuance cost of $55							2,349,541	9,343						
Compensation expense related to stock options and restricted stock awards											106			106
Vesting of restricted stock awards									15,042		139			139
Vesting of stock awards early exercised									514,940	1	106			107
Net loss												(11,636)		(11,636)
Balance at December 31, 2012	9,999,999	9,951	2,750,000	4,662	5,141,667	15,241	2,349,541	9,343	830,823	1	654	(22,210)		(21,555)
Issuance of Series C Convertible Preferred Stock, net of issuance cost of $19							693,571	2,755						
Compensation expense related to stock options and restricted stock awards											103			103
Vesting of restricted stock									1,379					
Vesting of stock awards early exercised									61,772		38			38
Net loss												(3,293)		(3,293)
Balance at March 31, 2013 (unaudited)	9,999,999	$ 9,951	2,750,000	$ 4,662	5,141,667	$ 15,241	3,043,112	$ 12,098	893,974	$ 1	$ 795	$ (25,503)	$	(24,707)

The accompanying notes are an integral part of these financial statements.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

STATEMENTS OF CASH FLOWS

(Amounts in thousands)

	Year Ended December 31,		Three Months Ended March 31,		Cumulative Period From Inception (December 1, 2010) to March 31, 2013 (unaudited)
	2011	2012	2012 (unaudited)	2013	
Cash flows from operating activities					
Net loss	$ (3,464)	$ (11,636)	$ (2,245)	$ (3,293)	$ (25,227)
Adjustments to reconcile net loss to net cash used in operating activities:					
Acquired in-process research and development		1,500			8,025
Stock-based compensation expense	26	106	20	103	235
Depreciation expense	4	13	2	3	20
Non-cash interest expense				3	3
(Gain) loss on disposal of property and equipment				1	1
Changes in operating assets and liabilities:					
Prepaid expenses	(4)		(14)	(24)	(49)
Other assets	(21)	(32)	(38)	28	(4)
Accounts payable	(146)	536	139	713	1,474
Accrued expenses	396	965	260	(654)	707
Deferred income		800			800
Other liabilities	68	(68)	(68)		
Net cash used in operating activities	(3,141)	(7,816)	(1,944)	(3,120)	(14,015)
Cash flows from investing activities					
Purchase of property and equipment	(27)	(10)		(8)	(45)
Purchase of marketable securities	(6,382)	(6,627)	(980)	(735)	(13,744)
Sales of marketable securities		6,627	980	735	7,362
Purchase of in-process research and development		(1,000)			(7,525)
Change in restricted cash	(140)				(140)
Net cash used in investing activities	(6,549)	(1,010)		(8)	(14,092)
Cash flows from financing activities					
Proceeds from issuance of debt, net of discount				4,927	4,927
Proceeds from issuance of Series A convertible preferred stock, net of issuance costs					9,951
Proceeds from issuance of Series A-1 convertible preferred stock, net of issuance costs					4,662
Proceeds from issuance of Series B convertible preferred stock, net of issuance costs	7,542	7,699	7,699		15,241
Proceeds from issuance of Series C convertible preferred stock, net of issuance costs		8,693		3,406	12,099
Proceeds from issuance of restricted stock		139			139
Proceeds from stock option exercises		266		97	363

Repurchase of early exercised stock				(5)	(5)
Net cash provided by financing activities	7,542	16,797	7,699	8,425	47,377
Net increase (decrease) in cash and cash equivalents	(2,148)	7,971	5,755	5,297	19,270
Cash and cash equivalents, beginning of period	8,150	6,002	6,002	13,973	
Cash and cash equivalents, end of period	$ 6,002	$ 13,973	$ 11,757	$ 19,270	$ 19,270
Supplemental disclosure of cash-flow information:					
Cash paid for interest	$	$	$	$ 21	$ 21
Supplemental disclosure of noncash investing and financing activities:					
Accrued third-party milestone payment	$	$ 500	$	$ 500	$ 500
Deferred initial public offering costs included in accounts payable or accrued expenses	$	$	$	$ 1,211	$ 1,211

The accompanying notes are an integral part of these financial statements.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

1. Nature of the Business and Basis of Presentation

Aratana Therapeutics, Inc. (the Company) (a development stage enterprise) was incorporated on December 1, 2010 under the laws of the State of Delaware. The Company is a biopharmaceutical company focused on the licensing, development and commercialization of innovative prescription medicines for pets (pet therapeutics). The Company has licensed and is developing three compounds: a selective prostaglandin E receptor 4 (EP4) antagonist (AT-001) for the treatment of pain and inflammation associated with arthritis in dogs and for pain management in cats; a ghrelin agonist (AT-002) for inappetence in cats and dogs; and a bupivacaine liposome injectable suspension (AT-003) for the treatment of post-operative pain in cats and dogs. Since its inception, the Company has devoted substantially all of its efforts to research and development, recruiting management and technical staff, acquiring operating assets and raising capital. Accordingly, the Company is considered to be in the development stage.

The Company is subject to risks common to companies in the biotechnology and pharmaceutical industries. There can be no assurance that the Company s licensing efforts will identify viable product candidates, that the Company s research and development will be successfully completed, that adequate protection for the Company s technology will be obtained, that any products developed will obtain necessary government regulatory approval or that any approved products will be commercially viable. The Company operates in an environment of substantial competition from other animal health companies. In addition, the Company is dependent upon the services of its employees and consultants, as well as third-party contract research organizations and manufacturers.

The Company s financial statements have been prepared on the basis of continuity of operations, realization of assets and the satisfaction of liabilities in the ordinary course of business. The Company has experienced negative cash flows from operations and has cumulative net losses of $25,227 from inception (December 1, 2010) to March 31, 2013 (unaudited). The future viability of the Company is largely dependent on its ability to generate cash from operating activities or to raise additional capital to finance its operations. The Company s failure to raise capital as and when needed could have a negative impact on its financial condition and its ability to pursue its business strategies.

The Company is seeking to complete an initial public offering of its common stock. Upon a successful qualified public offering with gross proceeds of not less than $40,000 and a price of not less than $9.00 per share, subject to certain terms, the Company s outstanding convertible preferred stock will automatically convert into shares of common stock.

In the event the Company does not complete an initial public offering, the Company may seek additional funding through private financings, or through existing or new license agreements. The Company may not be able to obtain financing on acceptable terms, or at all, and the Company may not be able to enter into additional license arrangements. The terms of any financing may adversely affect the holdings or the rights of the Company s stockholders. Arrangements with parties to the Company s license agreements or others may require the Company to relinquish rights to certain of its technologies or product candidates. If the Company is unable to obtain funding, the Company could be forced to delay, reduce or eliminate its research and development programs, product portfolio expansion or commercialization efforts, which could adversely affect its business prospects.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). Certain amounts have been reclassified to conform to the current year presentation.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Significant estimates and assumptions reflected in these financial statements include, but are not limited to, the valuation of common stock and stock-based awards and the accrual of research and development expenses. Estimates are periodically reviewed in light of changes in circumstances, facts and experience. Actual results could differ from those estimates.

Unaudited Interim Financial Information

The accompanying balance sheet as of March 31, 2013, statements of operations and comprehensive loss, of cash flows and of changes in convertible preferred stock and stockholders deficit for the three months ended March 31, 2012 and 2013 and the cumulative period from inception (December 1, 2010) to March 31, 2013, are unaudited. The interim unaudited financial statements have been prepared on the same basis as the annual audited financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company s financial position as of March 31, 2013 and the results of its operations and comprehensive loss and its cash flows for the three months ended March 31, 2012 and 2013 and the cumulative period from inception (December 1, 2010) to March 31, 2013. The financial data and other information disclosed in these notes related to the three months ended March 31, 2012 and 2013 and the cumulative period from inception (December 1, 2010) to March 31, 2013 are unaudited. The results for the three months ended March 31, 2013 are not necessarily indicative of results to be expected for the year ending December 31, 2013, any other interim periods, or any future year or period.

Unaudited Pro Forma Information

Upon the closing of a qualified initial public offering, all of the convertible preferred stock outstanding (Note 10) will automatically convert into common stock. The accompanying unaudited pro forma balance sheet as of March 31, 2013 has been prepared to give effect to (i) the automatic conversion of all outstanding shares of convertible preferred stock into 12,596,115 shares of common stock, and (ii) the issuance of 619,677 shares of common stock to the holders of Series A, B, and C convertible preferred stock immediately prior to the closing of this offering in satisfaction of accumulated and unpaid dividends, as though the proposed initial public offering had occurred on March 31, 2013. In the accompanying statements of operations, unaudited pro forma basic and diluted net loss per share attributable to common stockholders for the year ended December 31, 2012 and the three months ended March 31, 2013 has been prepared to give effect to (i) the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock, and (ii) the issuance of shares of common stock to the holders of Series A, B, and C convertible preferred stock immediately prior to the closing of this offering in satisfaction of accumulated and unpaid dividends, as though the proposed initial public offering had occurred on the later of January 1, 2012 or the issuance date of the convertible preferred stock.

Cash and Cash Equivalents

The Company classifies all highly liquid investments with stated maturities of three months or less from the date of purchase as cash equivalents. As of December 31, 2011, cash equivalents consisted of certificates of deposit (CDs). The company held no cash equivalents as of December 31, 2012 and March 31, 2013 (unaudited).

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies (Continued)

Restricted Cash

The Company uses a collateralized letter of credit for its operations. Per the terms of a loan agreement, the Company has posted collateral to UMB N.A. to collateralize future obligations. The Company classifies the collateral as restricted cash. As of December 31, 2011 and 2012 and March 31, 2013 (unaudited), the restricted cash was invested by the bank in a CD.

Marketable Securities

The Company classifies all highly liquid investments with stated maturities of greater than three months from the date of purchase as marketable securities. The Company determines the appropriate classification of investments in marketable securities at the time of purchase and re-evaluates such designation at each balance sheet date. The Company classifies and accounts for marketable securities as available-for-sale. The Company may or may not hold securities with stated maturities greater than 12 months until maturity. After consideration of the risk versus reward objectives, as well as the Company s liquidity requirements, the Company may sell these securities prior to their stated maturities. These securities are viewed as being available to support current operations. As a result, the Company classifies securities with maturities beyond 12 months as current assets under the caption marketable securities in the balance sheet. The Company reports available-for-sale investments at fair value as of each balance sheet date and records any unrealized gains and losses as a component of stockholders deficit. At December 31, 2011 and 2012 and March 31, 2013, the fair value of marketable securities approximated par value and as such, no gains or losses were recorded as a component of other comprehensive income. The cost of securities sold is determined on a specific identification basis, and realized gains and losses are included in other income (expense) within the statement of operations. If any adjustment to fair value reflects a decline in the value of the investment, the Company considers available evidence to evaluate the extent to which the decline is other than temporary and recognizes the impairment by releasing other comprehensive income to the statement of operations. There were no such adjustments necessary during the years ended December 31, 2011 and 2012, the three months ended March 31, 2012 and 2013 (unaudited) or the cumulative period from inception (December 1, 2010) to March 31, 2013 (unaudited).

Concentration of Credit Risk and of Significant Suppliers and Customers

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents and marketable securities. At December 31, 2011 and 2012 and March 31, 2013 (unaudited), substantially all of the Company s cash equivalents and investments were invested in CDs insured by the Federal Deposit Insurance Corporation (FDIC). The Company also generally maintains balances in various operating accounts in excess of federally insured limits at two accredited financial institutions. The Company does not believe that it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

The Company is dependent on third-party manufacturers to supply products for research and development activities in its programs. In particular, the Company relies and expects to continue to rely on a small number of manufacturers to supply it with its requirements for the active pharmaceutical ingredients, or API, and formulated drugs related to these programs. These programs would be adversely affected by a significant interruption in the supply of active pharmaceutical ingredients. As of December 31, 2011 and 2012 and March 31, 2013 (unaudited), the Company did not have any customers.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies (Continued)

Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. A fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last is considered unobservable, is used to measure fair value:

Level 1 Quoted prices in active markets for identical assets or liabilities.
Level 2 Observable inputs (other than Level 1 quoted prices) such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The Company s cash equivalents and marketable securities are carried at fair value determined according to the fair value hierarchy described above (Note 3). The carrying values of accounts payable and accrued expenses approximate their fair value due to the short-term nature of these liabilities.

Debt Issuance Costs, net

Debt issuance costs, net represent legal and other direct costs related to the Company s Credit Facility (Note 7). These costs are recorded as debt issuance costs on the balance sheets at the time they are incurred and are being amortized to interest expense through the scheduled final principal payment date. As of March 31, 2013 (unaudited), the Company recorded debt issuance costs of $30 in other assets in the accompanying balance sheet and recognized interest expense of $1 in the statement of operations for the three months ended March 31, 2013 (unaudited) related to the amortization of debt issuance costs. The Company did not record any debt issuance costs as of December 31, 2011 or 2012 and did not recognize any interest expense related to debt issuance costs during the years ended December 31, 2011 and 2012 or the three months ended March 31, 2012 (unaudited).

Deferred Initial Public Offering Costs

The Company capitalizes certain legal, accounting and other third-party fees that are directly associated with in-process equity financings as other assets until such financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders deficit as a reduction of additional paid-in capital generated as a result of the offering. As of March 31, 2013 (unaudited), the Company recorded deferred offering costs of $1,211 in prepaid expenses and other current assets in the accompanying balance sheet in contemplation of a probable 2013 equity financing. Should the equity financing no longer be considered probable of being consummated, the deferred offering costs would be expensed immediately as a charge to operating expenses in the statement of operations. The Company did not record any deferred offering costs as of December 31, 2011 or 2012.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies (Continued)

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation expense is recognized using the straight-line method over the following estimated useful lives:

Laboratory and office equipment	3 5 years
Computer equipment	3 5 years
Furniture	3 7 years

Expenditures for repairs and maintenance of assets are charged to expense as incurred. Costs of major additions and betterments are capitalized and depreciated on a straight-line basis over their useful lives. Upon retirement or sale, the cost and related accumulated depreciation of assets disposed of are removed from the accounts and any resulting gain or loss is included in income (loss) from operations.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends, and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset for recoverability, the Company compares forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset to its carrying value. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of an asset are less than its carrying amount. The impairment loss would be based on the excess of the carrying value of the impaired asset over its fair value, determined based on discounted cash flows. To date, the Company has not recorded any impairment losses on long-lived assets.

Revenue Recognition

The Company is a development stage enterprise and has not generated any revenue since inception.

Research and Development Costs

Research and development costs are expensed as incurred. Included in research and development costs are wages, stock-based compensation and employee benefits, and other operational costs related to the Company s research and development activities, including facility-related expenses, external costs of outside contractors engaged to conduct both preclinical and clinical studies and allocation of corporate costs.

Patent Costs

All patent-related costs incurred in connection with filing and prosecuting patent applications are recorded as general and administrative expenses as incurred, as recoverability of such expenditures is uncertain.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies (Continued)

Accounting for Stock-Based Compensation

The Company s stock-based compensation program grants awards that may consist of stock options and restricted stock awards. The fair values of stock option grants are determined as of the date of grant using the Black-Scholes option pricing method. This method incorporates the fair value of the Company s common stock at the date of each grant and various assumptions such as the risk-free interest rate, expected volatility based on the historic volatility of publicly-traded peer companies, expected dividend yield, and term of the options. The fair values of restricted stock awards are determined based on the fair value of the Company s common stock, as determined by management and the board of directors, on the date of grant. The fair values of the stock-based awards, including the effect of estimated forfeitures, are then expensed over the requisite service period, which is generally the awards vesting period. The Company classifies stock-based compensation expense in the statement of operations in the same manner in which the award recipient s payroll costs are classified.

For stock-based awards granted to consultants and nonemployees, compensation expense is recognized over the period during which services are rendered by such consultants and nonemployees until completed. At the end of each financial reporting period prior to completion of the service, the value of these awards is re-measured using the then-current fair value of the Company s common stock and updated assumption inputs in the Black-Scholes option pricing model.

For stock-based awards granted to employees, the Company allows employees to exercise awards prior to vesting. However, the employee may not sell or transfer these awards prior to vesting. For most of these awards, the Company has the right, but not the obligation, to repurchase any unvested (but issued) shares of common stock upon termination of employment or service at the lesser of (1) the original purchase price per share or (2) the fair value of the common share on the date of termination. If a stock option is early exercised in this circumstance, the consideration received for an exercise of an option is considered a deposit of the exercise price, and the related dollar amount is recorded as a liability. The unvested shares and liability are reclassified to equity as the award vests. The Company has 90 days from the effective termination of employment or service to repurchase unvested shares that are issued upon the exercise of a stock option prior to its vesting. If, after 90 days, the Company has elected not to repurchase the unvested shares, the shares would become vested in full. The Company would then apply modification accounting and any resulting compensation expense would be immediately recognized related to the award. Upon vesting, these shares would be considered issued and outstanding shares of common stock.

In addition, the Company has granted restricted stock awards subject to repurchase to three employees under which the Company has the right, but not the obligation, upon termination of the holder s employment or service, to repurchase unvested shares at the greater of (1) the original purchase price per share or (2) the fair value of the common share on the date of termination (Note 12).

Income Taxes

The Company accounts for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the financial statements or in the Company s tax returns. Deferred taxes are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect in the years in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent it believes, based upon the weight of available evidence, that it is more likely than

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies (Continued)

not that all or a portion of deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

The Company accounts for uncertainty in income taxes recognized in the financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate as well as the related net interest and penalties.

Segment Data

The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The Company is a pet therapeutics company developing compounds to address unmet and under-served medical needs in companion animals, including pain and inappetence. All assets are held in the United States.

Comprehensive Loss

For the years ended December 31, 2011 and 2012, the three months ended March 31, 2012 and 2013 (unaudited) and the cumulative period from December 1, 2010 (inception) through March 31, 2013 (unaudited), there was no difference between net loss and comprehensive loss.

Net Loss Per Share

The Company follows the two-class method when computing net loss per share, as the Company has issued shares that meet the definition of participating securities. The two-class method determines net loss per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed.

The Company s convertible preferred stock contractually entitles the holders of such shares to participate in dividends but does not contractually require the holders of such shares to participate in losses of the Company. Similarly, restricted stock awards granted by the Company entitle the holder of such awards to dividends declared or paid by the board of directors, regardless of whether such awards are unvested, as if such shares were outstanding common shares at the time of the dividend. However, the unvested restricted stock awards are not entitled to share in the residual net assets (deficit) of the Company. Accordingly, in periods in which the Company reports a net loss or a net loss attributable to common stockholders resulting from preferred stock dividends, accretion or modifications, net losses are not allocated to participating securities. The Company reported a net loss attributable to common stockholders for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013 (unaudited).

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies (Continued)

Basic net loss per share attributable to common stockholders is computed by dividing the net loss attributable to common stockholders by the weighted average number of shares of common stock outstanding for the period. Diluted net loss attributable to common stockholders is computed by adjusting net loss attributable to common stockholders to reallocate undistributed earnings based on the potential impact of dilutive securities, including outstanding stock options. Diluted net loss per share attributable to common stockholders is computed by dividing the diluted net loss attributable to common stockholders by the weighted average number of shares of common stock, including potential dilutive shares of common stock assuming the dilutive effect of potentially dilutive securities. For periods in which the Company has reported net losses, diluted net loss per share attributable to common stockholders is the same as basic net loss per share attributable to common stockholders, since their impact would be anti-dilutive to the calculation of net loss per share. Diluted net loss per share attributable to common stockholders is the same as basic net loss per share attributable to common stockholders for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013 (unaudited).

Recently Issued and Adopted Accounting Pronouncements

Comprehensive Income Presentation of Comprehensive Income: In June 2011, the Financial Accounting Standards Board (FASB) issued guidance which requires all non-owner changes in stockholders equity to be presented either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The option to present the components of other comprehensive income as part of the statement of changes in stockholders equity has been eliminated by this new guidance. In December 2011, the FASB issued guidance to indefinitely defer the effective date of the new requirement to present reclassifications of items out of adjustments of other comprehensive income in the income statement. However, all other remaining guidance contained in the new accounting standard for the presentation of comprehensive income was effective for the Company for interim and annual periods beginning on January 1, 2012. The Company applied this guidance retrospectively for all periods presented. As the guidance relates only to how comprehensive income is disclosed and does not change the items that must be reported as comprehensive income, adoption did not have an effect on the Company s financial position, results of operations or cash flows.

Comprehensive Income Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income: In February 2013, the FASB issued guidance requiring entities to report the effect of significant reclassifications out of accumulated other comprehensive income on the respective line items in net income if the amount is required to be reclassified under U.S. GAAP. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. This guidance revised the previous guidance issued in June 2011 that was deferred and was applicable for the Company for interim and annual periods beginning on January 1, 2013. The adoption of this guidance did not have a material impact on its financial condition, results of operations or cash flows.

Fair Value Measurement Amendments to Achieve Common Fair Value Measurements and Disclosure Requirements in U.S. GAAP and IFRSs: In May 2011, the FASB issued guidance which represents the converged guidance of the FASB and the IASB on fair value measurement and disclosures. In particular, the new guidance: (1) requires the disclosure of the level within the fair value hierarchy level for financial instruments that are not measured at fair value but for which the fair value is required to be disclosed; (2) expands level 3 fair value disclosures about valuation process and sensitivity of the fair value measurement to changes in unobservable inputs; (3) permits an exception to measure fair value of a net position for financial assets and financial liabilities managed on a net position basis; and (4) clarifies that the highest and best use measurement is only applicable to nonfinancial

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

2. Summary of Significant Accounting Policies (Continued)

assets. This guidance was applied prospectively for interim and annual periods beginning on January 1, 2012. The adoption of this guidance did not have a material effect on the Company s financial condition, results of operations or cash flows.

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on the Company s financial statements upon adoption.

3. Fair Value of Financial Assets and Liabilities

The following tables present information about the Company s financial assets that were subject to fair value measurement on a recurring basis as of December 31, 2011 and 2012 and March 31, 2013 (unaudited) and indicate the fair value hierarchy of the valuation inputs utilized to determine such fair value:

	Fair Value Measurements as of December 31, 2011 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$	$ 4,800	$	$ 4,800
Marketable securities		6,382		6,382
	$	$ 11,182	$	$ 11,182

	Fair Value Measurements as of December 31, 2012 Using:			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$	$	$	$
Marketable securities		6,382		6,382
	$	$ 6,382	$	$ 6,382

	Fair Value Measurements as of March 31, 2013 (unaudited) Using:			
	Level 1	Level 2	Level 3	Total

Assets:				
Cash equivalents	$	$	$	$
Marketable securities		6,382		6,382
	$	$ 6,382	$	$ 6,382

The Company measures the fair value of marketable securities using Level 2 inputs and primarily relies on quoted prices in active markets for similar marketable securities. During the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013 (unaudited), there were no transfers between Level 1, Level 2 and Level 3.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

3. Fair Value of Financial Assets and Liabilities (Continued)

The amount outstanding under the Company s loan and security agreement (the Credit Facility) is measured at its carrying value in the accompanying balance sheet, though the Company discloses the fair value of this financial instrument. The Company determines the fair value of the amount outstanding under the Credit Facility using an income approach, utilizing a discounted cash flow analysis based on current market interest rates for debt issues with similar remaining years to maturity adjusted for credit risk. The amount outstanding under the Credit Facility was valued using Level 2 inputs as of March 31, 2013 (unaudited). The result of the calculation yielded a fair value that approximates carrying value.

4. Marketable Securities

As of December 31, 2011 and 2012 and March 31, 2013 (unaudited), the fair value of available-for-sale marketable securities by type of security was as follows:

	December 31, 2011			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Certificates of deposit	$ 6,382	$	$	$ 6,382
	$ 6,382	$	$	$ 6,382

	December 31, 2012			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Certificates of deposit	$ 6,382	$	$	$ 6,382
	$ 6,382	$	$	$ 6,382

	March 31, 2013 (unaudited)			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Certificates of deposit	$ 6,382	$	$	$ 6,382
	$ 6,382	$	$	$ 6,382

At December 31, 2011 and March 31, 2013 (unaudited), marketable securities consisted of investments that mature within one year. At December 31, 2012, marketable securities consisted of investments that mature within one year, with the exception of one CD, which has a

stated maturity within two years and an aggregate fair value of $245; this investment is classified in current assets as it is viewed as being available to support current operations.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

5. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following as of December 31, 2011 and 2012 and March 31, 2013 (unaudited):

	December 31, 2011	2012	March 31, 2013 (unaudited)
Deferred initial public offering costs	$	$	$ 1,211
Prepaid expenses	25	25	49
	$ 25	$ 25	$ 1,260

6. Property and Equipment, Net

Property and equipment consisted of the following as of December 31, 2011 and 2012 and March 31, 2013 (unaudited):

	December 31, 2011	2012	March 31, 2013 (unaudited)
Laboratory and office equipment	$ 2	$ 2	$ 2
Computer equipment	23	32	36
Furniture	2	2	2
Total property and equipment	27	36	40
Less: Accumulated depreciation	(4)	(17)	(17)
Property and equipment, net	$ 23	$ 19	$ 23

Depreciation expense was $4 and $13 for the years ended December 31, 2011 and 2012, respectively, and was $2 and $3 for the three months ended March 31, 2012 and 2013 (unaudited). During the years ended December 31, 2011 and 2012, no assets were disposed of or sold.

7. Debt

The Company had no debt outstanding as of December 31, 2011 and December 31, 2012.

On March 4, 2013, the Company entered into a loan and security agreement (the Credit Facility) with Square 1 Bank as lender. The Credit Facility provides for an initial term loan of $5,000 in principal (the Initial Term Loan) and additional term loans not to exceed $5,000 in principal, with total borrowings not to exceed $10,000. The additional term loans are available through March 4, 2014 (upon request and subject

to the receipt of at least $20,000 in proceeds from an initial public offering of the Company s stock, the sale or issuance of equity securities in a private transaction or a corporate partnership, and other customary conditions). The term loans are to be used to supplement the Company s growth capital needs and for general corporate purposes, and all loans funded under the Credit Facility mature on March 4, 2016. The Credit Facility is secured by substantially all of the Company s personal property other than intellectual property. The Company is not permitted to encumber, or grant a security interest in, its intellectual property. At March 31, 2013 (unaudited), total borrowings under the Credit Facility were $5,000.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

7. Debt (Continued)

The Company is obligated to make interest-only payments on any loans funded under the Credit Facility until March 31, 2014, and thereafter to pay 24 consecutive equal monthly installments of principal and interest through March 31, 2016. Prior to March 4, 2014, the loans under the Credit Facility bear interest at a variable annual rate equal to the greater of (i) the prime rate then in effect plus 2.25% or (ii) 5.50%. On or after March 4, 2014, the loans under the Credit Facility bear interest at a fixed annual rate equal to the greater of (i) prime rate in effect on March 4, 2014 plus 2.25% or (ii) 5.50%.

On the issuance date of March 4, 2013, the Initial Term Loan was recorded in the balance sheet net of discount of $73, related to fees assessed by the lender at the time of borrowing. The carrying value of this debt is being accreted to the principal amount of the debt by charges to interest expense using the effective-interest method over the three-year term of the Initial Term Loan to the maturity date. At March 31, 2013 (unaudited), the debt discount balance totaled $71. Accretion amounts recognized as interest expense for the three months ended March 31, 2013 (unaudited) totaled $2.

The Company is obligated to pay a success fee of up to $250 upon a sale of substantially all of the Company s assets or capital stock or upon a reorganization where 100% of voting stockholders hold less than 50% of voting securities after such transaction.

The Credit Facility includes restrictions on, among other things, the Company s ability to incur additional indebtedness, pay dividends in cash or make other distributions in cash, make certain investments, create liens, sell assets, make loans and make capital expenditures. The Credit Facility requires that, from March 4, 2013 through December 31, 2013, the cash maintained at Square 1 Bank plus the cash available under the Credit Facility equal an amount that is at least four times the amount of monthly cash burn, and the Company is required to maintain a liquidity ratio of at least one-to-one beginning January 1, 2014. The Credit Facility further requires that 50% of the Company s cash balance must be held at Square 1 Bank, provided the Company has at least $10,000 in cash. If the Company has less than $10,000 in cash, all cash must be held at Square 1 Bank.

The Credit Facility also includes events of default, the occurrence and continuation of any of which provides Square 1 Bank the right to exercise remedies against the Company and the collateral securing the loans under the Credit Facility, including cash. These events of default include, among other things, failure to pay any amounts due under the Credit Facility, insolvency, the occurrence of a material adverse event, the occurrence of any default under certain other indebtedness and a final judgment against the Company in an amount greater than $350. At March 31, 2013 (unaudited), the Company is in compliance with all covenants related to the Credit Facility.

Estimated future principal payments under the Initial Term Loan are as follows:

Years Ending December 31,	
2013	$
2014	2,083
2015	2,500
2016	417
2017	

Thereafter	
Total	$ 5,000

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

7. Debt (Continued)

During the three months ended March 31, 2013 (unaudited), the Company recognized $24 of interest expense related to the Credit Facility.

8. Accrued Expenses, Other Current Liabilities and Other Long-Term Liabilities

Accrued expenses (current), other current liabilities and other long-term liabilities consisted of the following as of December 31, 2011 and 2012 and March 31, 2013 (unaudited):

	December 31, 2011	2012	March 31, 2013 (unaudited)
Accrued expenses:			
Accrued payroll and related expenses	$	$ 551	$ 204
Accrued professional fees	20	88	478
Accrued interest expense			21
Accrued research and development costs	376	695	301
Accrued 401(k) company match		20	5
Accrued other		7	5
	$ 396	$ 1,361	$ 1,014
Other current liabilities:			
Early exercise of stock-based awards	$	$ 62	$ 104
Accrued third-party license fee		500	500
Other current liabilities	68		
	$ 68	$ 562	$ 604
Other long-term liabilities:			
Early exercise of stock-based awards	$	$ 96	$ 109
	$	$ 96	$ 109

9. Agreements

RaQualia Pharma Inc. (RaQualia)

On December 27, 2010, the Company entered into two Exclusive License Agreements with RaQualia (the RaQualia Agreements), that granted the Company global rights, subject to certain exceptions for injectables in Japan, Korea, China and Taiwan for development and commercialization of licensed animal health products for compounds RQ-00000005 (AT-002) and RQ-00000007 (AT-001). The transaction was accounted for as a purchase of assets, as the acquired assets did not constitute a business under the guidance of ASC 805, *Business Combinations*. The Company paid cash to RaQualia as consideration for the technology licenses for AT-001 and AT-002 in the amounts of $3,000 and $4,350, respectively. In connection with the RaQualia Agreements, the Company issued 2,750,000 shares of Series A-1 convertible preferred stock to RaQualia at an issuance price of $2.00 per share and received gross proceeds of $5,500. The fair value of these shares was $4,675, or $1.70 per share, on the date of the transaction (Note 10). At the date of acquisition, this technology had not reached technological feasibility and had no alternative future use. Accordingly, in-process research and development of $6,525, the

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

9. Agreements (Continued)

$7,350 paid, offset by the $825 excess of the cash proceeds over the fair value of the shares, was expensed upon acquisition. The Company may also be required to pay RaQualia milestone payments associated with AT-001 and AT-002 of up to $10,000 and $8,500, respectively, upon the Company s achievement of certain development and regulatory milestones, as well as mid-single digit royalties on the Company s product sales, if any. As of December 31, 2012 and March 31, 2013 (unaudited), the Company has not accrued or paid any milestone or royalty payments since execution of the RaQualia Agreements.

On July 12, 2012, the Company entered into an API Development Agreement with RaQualia (the RaQualia API Agreement) to develop the active pharmaceutical ingredient in relation to compound RQ-00000007 (AT-001). Under the terms of the RaQualia API Agreement, RaQualia was required to pay $800 to the Company upon execution of the agreement. The Company is also eligible to receive another $800 payment for the successful development and delivery of the API to RaQualia. The Company anticipates delivering the API to RaQualia during 2013. The Company has determined that its obligations under the RaQualia API Agreement to provide the API and a license to the API manufacturing process represent a single unit of account, as the manufacturing license has no value if the API cannot be produced to specification. The Company cannot reasonably estimate the effort or costs required related to its obligations under the agreement and the up-front payment may be refundable if the Company fails to perform under the contract. Accordingly, as of December 31, 2012 and March 31, 2013, the Company has recorded the $800 payment received at execution as deferred income and will not recognize the amount until the Company completes the process of delivering the API to RaQualia.

Pacira Pharmaceuticals, Inc. (Pacira)

On December 5, 2012, the Company entered into an Exclusive License, Development, and Commercialization Agreement with Pacira (the Pacira Agreement) that granted the Company global rights for development and commercialization of licensed animal health products for a bupivacaine liposome injectable suspension for the treatment of post-operative pain. Under the terms of the Pacira Agreement, the Company paid an initial license fee of $1,000. On the date of acquisition, the licensed technology had not reached technological feasibility in animal health indications and had no alternative future use in the field of animal health. Accordingly, in-process research and development of $1,000 was expensed upon acquisition. The Company may also be required to pay Pacira milestone payments of up to $42,500 upon the Company s achievement of certain regulatory and commercial milestones, as well as tiered royalties on the Company s product sales, if any. As of December 31, 2012 and March 31, 2013 (unaudited), the Company had accrued $500 of those potential future milestone payments. That amount is payable upon the earlier of the dosing of the first client-owned animal in a clinical field trial or December 31, 2013. As this milestone payment is due on December 31, 2013, even if a dosing has not then commenced, it is considered to be a time-based milestone payment. Accordingly, this milestone payment was considered to be a portion of the minimum consideration paid for the acquisition of the AT-003 license and, as such, was accrued upon the execution of the Pacira Agreement. The Company determined that the AT-003 technology had not yet reached technological feasibility and had no alternative future use. Accordingly, the accrued $500 milestone payment was expensed as in-process research and development expense during the year ended December 31, 2012. No royalty payments have been paid or accrued since execution of the Pacira Agreement.

The Company does not expect to achieve additional milestones related to the Pacira Agreement within the next twelve months.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

9. Agreements (Continued)

Kansas Bioscience Authority (KBA) Programs

On March 6, 2012, the Company was awarded a research and development grant from KBA, a non-principal owner independent entity of the State of Kansas, which could provide up to $1,333 in research and development funding to the Company over a period of approximately two years. The grant will support pre-formulation, formulation, manufacture and pivotal studies of the Company s first two companion animal development programs, AT-001 and AT-002. The grant has an initial term of approximately 24 months ending on March 31, 2014. The Company recognizes funding received under this grant in other income when payment is received from KBA. During the year ended December 31, 2012 and the three months ended March 31, 2013 (unaudited), income of $100 and $69 was recognized under this grant, respectively.

Further, in private offerings the Company conducted in December 2010, November 2011, February 2012 and January 2013, the Company issued to the KBA an aggregate of 500,000 shares of its Series A convertible preferred stock, 166,666 shares of its Series B convertible preferred stock and 81,037 shares of its Series C convertible preferred stock in exchange for aggregate proceeds of approximately $1,300.

Pursuant to Kansas law, the Company may be required to repay any financial assistance received from the KBA, which may include an obligation to repurchase the shares of its capital stock purchased by the KBA, subject to the discretion of the KBA, if the Company relocates the operations in which the KBA invested outside of the State of Kansas within ten years after receiving such financial assistance. Further, pursuant to the agreement accompanying the voucher award, the KBA may terminate the agreement and require the Company to repay the grant if it initiates procedures to dissolve and wind up or if it ceases operations within the State of Kansas within 10 years following the final grant payment. The Company has determined these contingencies to be within its control and will only account for the repayment of the equity and grant if it becomes probable that the Company is going to relocate the operations in which the KBA invested outside of the State of Kansas within the ten-year period or for the repayment of only the grant if it becomes probable that the Company is going to initiate procedures to dissolve and wind up or cease operations within the State of Kansas within the ten-year period.

Kansas Department of Commerce Program

In addition, 13 individual investors or permitted entity investors who purchased shares of its Series B convertible preferred stock and up to 18 individual investors or permitted entity investors who purchased shares of the Company s Series C convertible preferred stock were allocated approximately $1,500, in the aggregate, in Kansas income tax credits from the Kansas Department of Commerce in connection with their purchase of such shares in private offerings.

Pursuant to Kansas law, if within ten years after the receipt of financial assistance from the Kansas Department of Commerce, the Company does not satisfy at least one of these criteria (a) being a corporation domiciled in Kansas, (b) doing more than 50% of its business in Kansas and (c) doing more than 80% of its production in Kansas, then the Company may be required to repay such tax credits in an amount determined by the Kansas Department of Commerce. The Company believes that Kansas authorities have not provided guidance as to how the 50% or 80% criterion would be measured. As long as the Company meets at least one of these criteria, it will continue to be a qualified Kansas business under applicable law; however, if the Company does not meet at least one of these criteria, it may be required to repay the tax credits received by its investors in an amount determined by the Kansas Department of Commerce. The Company determined that this is a contingency within its own control and, based on its intent to remain a qualified Kansas business, no amount has been accrued for this contingency. The Company will only account for this contingency if it becomes probable that the Company is not going to meet any of the above criteria within the ten-year

period.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

10. Convertible Preferred Stock

The Company s Certificate of Incorporation, as amended, authorizes the Company to issue 20,941,667 shares of $0.001 par value preferred stock. The Company has issued Series A, Series A-1, Series B, and Series C convertible preferred stock (collectively, the Preferred Stock).

Preferred Stock consisted of the following as of December 31, 2011:

	Preferred Stock Authorized	Preferred Stock Issued and Outstanding	Liquidation Preference	Carrying Value	Common Stock Issuable Upon Conversion
Series A convertible preferred stock	10,000,000	9,999,999	$ 10,809	$ 9,951	6,016,849
Series A-1 convertible preferred stock	2,750,000	2,750,000	5,500	4,662	1,654,632
Series B convertible preferred stock	5,166,667	2,570,833	7,814	7,542	1,546,815
Series C convertible preferred stock					
	17,916,667	15,320,832	$ 24,123	$ 22,155	9,218,296

Preferred Stock consisted of the following as of December 31, 2012:

	Preferred Stock Authorized	Preferred Stock Issued and Outstanding	Liquidation Preference	Carrying Value	Common Stock Issuable Upon Conversion
Series A convertible preferred stock	10,000,000	9,999,999	$ 11,674	$ 9,957	6,016,849
Series A-1 convertible preferred stock	2,750,000	2,750,000	5,500	4,662	1,654,632
Series B convertible preferred stock	5,166,667	5,141,667	16,691	15,241	3,093,655
Series C convertible preferred stock	3,000,000	2,349,541	9,404	9,343	1,413,671
	20,916,667	20,241,207	$ 43,269	$ 39,203	12,178,807

Preferred Stock consisted of the following as of March 31, 2013 (unaudited):

	Preferred Stock Authorized	Preferred Stock Issued and Outstanding	Liquidation Preference	Carrying Value	Common Stock Issuable Upon Conversion

Series A convertible preferred stock	10,000,000	9,999,999	$ 11,904	$ 9,951	6,016,849
Series A-1 convertible preferred stock	2,750,000	2,750,000	5,500	4,662	1,654,632
Series B convertible preferred stock	5,166,667	5,141,667	17,011	15,241	3,093,655
Series C convertible preferred stock	3,050,000	3,043,112	12,400	12,098	1,830,979
	20,941,667	20,934,778	$ 46,815	$ 41,952	12,596,115

Issuances

On December 27, 2010, the Company issued 9,999,999 shares of Series A convertible preferred stock (the Series A Preferred Stock) at an issuance price equal to $1.00 per share and received gross proceeds of $10,000. In connection with the Series A Preferred Stock financing, the Company paid issuance costs totalling $49.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

10. Convertible Preferred Stock (Continued)

On December 27, 2010, the Company issued a total of 2,750,000 shares of Series A-1 convertible preferred stock (the Series A-1 Preferred Stock) to RaQualia at an issuance price equal to $2.00 per share and received gross proceeds of $5,500. Simultaneously, the Company used these proceeds as partial consideration to purchase intellectual property rights from RaQualia for $7,350 (Note 9). The fair value of these shares on the date of issuance was $1.70 per share for a total fair value of $4,675. Both the purchase of intellectual property rights and the sale of Series A-1 Preferred Stock, while subject to separate legal agreements, were executed in contemplation of each other. Accordingly, the Series A-1 Preferred Stock was recorded on the balance sheet at its fair value of $4,675, less issuance costs of $13, and the $825 of excess cash proceeds received from RaQualia over the fair value of the Series A-1 Preferred Stock was recorded as a reduction of the purchase price of the intellectual property purchased from RaQualia (which had the effect of reducing the in-process research and development expense recorded in the income statement), as the Series A-1 Preferred Stock was issued upon the simultaneous purchase of the intellectual property. The Company recorded a net charge of $6,525 to in-process research and development expense in the statement of operations to reflect the $7,350 consideration paid offset by the $825 excess of the cash proceeds received over the fair value of the shares.

The Series A-1 Preferred Stock does not have voting rights; however, it entitles the holder to a liquidation preference equal to the $2.00 original issue price per share, plus any declared and unpaid dividends. The holders of the Series A-1 Preferred Stock are entitled to receive their liquidation preference only after the holders of the Series A Preferred Stock have received their liquidation preference in full. The Series A Preferred Stock was issued at an original price per share of $1.00. As 60% of the Series A shares were issued to new investors, the $1.00 per share price was deemed to be the fair value of the Series A Preferred Stock at issuance. The Series A Preferred Stock has voting rights and entitles the holder to a liquidation preference equal to the original purchase price of $1.00 per share, plus accumulated and unpaid cumulative cash dividends, which accrue at a rate of 8% per annum, compounded annually. While the Series A-1 Preferred Stock is non-voting and junior in preference to the Series A Preferred Stock, it has a liquidation preference that is greater than that of the Series A Preferred Stock. Based on these differences, the Company determined the fair value of the Series A-1 Preferred Stock at issuance to be $1.70 per share, which was less than the $2.00 original issuance price.

On November 1, 2011 and December 2, 2011, the Company issued 2,500,000 and 70,833 shares of Series B convertible preferred stock, respectively (the Series B Preferred Stock), at an issuance price equal to $3.00 per share and received gross proceeds of $7,713. In connection with the 2011 Series B Preferred Stock financings, the Company paid issuance costs totaling $171. On February 15, 2012, the Company issued an additional 2,570,834 shares of the Series B Preferred Stock at an issuance price of $3.00 and received gross proceeds of $7,712. In connection with the 2012 Series B Preferred Stock financing, the Company paid issuance costs totaling $13.

On December 28, 2012, the Company issued 2,349,541 shares of Series C convertible preferred stock (the Series C Preferred Stock) at an issuance price of $4.00 per share and received gross proceeds of $9,398, which included a shareholder receivable of $650. The $650 of proceeds not received from the Series C shareholders is recorded as a receivable in the Company s balance sheet at December 31, 2012. The Company subsequently received a cash payment related to these proceeds in January 2013. In connection with the Series C Preferred Stock financing, the Company paid issuance costs totaling $55.

During the three months ended March 31, 2013 (unaudited), the Company issued an additional 693,571 shares of the Series C Preferred Stock at an issuance price of $4.00 per share and received gross proceeds of $2,774. In connection with the 2013 Series C Preferred Stock financings, the Company paid issuance costs totaling $19.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

10. Convertible Preferred Stock (Continued)

Issuance costs incurred in the Series A, Series A-1, Series B and Series C Preferred Stock financings were recorded as a reduction to gross proceeds.

The holders of the Preferred Stock have the following rights and preferences:

Dividends

Series C Preferred Stock Dividends

The holders of Series C Preferred Stock shall be entitled to receive, on a pari passu basis with the holders of Series B Preferred Stock, and prior and in preference to the holders of Series A Preferred Stock, Series A-1 Preferred Stock and common stock, cumulative cash dividends at the rate of eight percent (8%), compounded annually, of the Series C original purchase price of $4.00 per share, per annum on each then-outstanding share of Series C Preferred Stock (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). At December 31, 2011 and 2012 and March 31, 2013 (unaudited), accumulated and unpaid dividends amounted to $0, $6 and $227, respectively, for the Series C Preferred Stock.

Series B Preferred Stock Dividends

The holders of Series B Preferred Stock shall be entitled to receive, on a pari passu basis with the holders of Series C Preferred Stock, and prior and in preference to the holders of Series A Preferred Stock, Series A-1 Preferred Stock and common stock, cumulative cash dividends at the rate of eight percent (8%), compounded annually, of the Series B original purchase price of $3.00 per share, per annum on each then-outstanding share of Series B Preferred Stock (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). At December 31, 2011 and 2012 and March 31, 2013 (unaudited), accumulated and unpaid dividends amounted to $101, $1,266 and $1,586, respectively, for the Series B Preferred Stock.

Series A Preferred Stock Dividends

The holders of Series A Preferred Stock shall be entitled to receive, prior and in preference to the holders of Series A-1 Preferred Stock and common stock, cumulative cash dividends at the rate of eight percent (8%), compounded annually, of the Series A original purchase price of $1.00 per share, per annum on each then-outstanding share of Series A Preferred Stock (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). In connection with Series B Preferred Stock financing, the Series A Preferred Stock dividends were modified to be compounding annually. The increase in fair value of the Series A Preferred Stock due to this modification was recorded as a charge to additional paid-in capital in the amount of $276. At December 31, 2011 and 2012 and March 31, 2013 (unaudited), accumulated and unpaid dividends amounted to $809, $1,674 and $1,904, respectively, for the Series A Preferred Stock.

Series A-1 Preferred Stock Dividends

The holders of Series A-1 Preferred Stock shall be entitled to receive, prior and in preference to the holders of common stock, noncumulative cash dividends, when, as and if declared by the board of directors of the Company out of any funds that are legally available at the rate of eight

percent (8%) of the Series A-1 original purchase price of $2.00 per share, per annum on each then-outstanding share of Series A-1 Preferred Stock (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). As of December 31, 2011 and 2012 and March 31, 2013 (unaudited), no dividends had been declared to date by the board of directors.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

10. Convertible Preferred Stock (Continued)

Priority of Preferred Stock Dividends

So long as any shares of Preferred Stock shall be outstanding, no dividend, whether in cash or property, shall be paid or declared, nor shall any other distribution be made, on any shares of common stock, nor shall any shares of common stock be purchased, redeemed, or otherwise acquired for value by the Company (except for repurchases of shares of common stock issued to or held by employees, consultants, officers and directors of the Company at a price not greater than the lower of fair market value as determined in good faith by the board of directors or the amount paid by such persons for such shares upon the termination of their employment or services pursuant to agreements approved by the board of directors) until all dividends on the Preferred Stock have been paid or declared and set apart. In the event dividends are paid on any share of common stock, an additional dividend shall be paid with respect to all then-outstanding shares of Preferred Stock in an amount per share equal (on an as-if-converted to common stock basis) to the amount paid or set aside for each share of common stock.

Voting Rights

Shares of Series A, Series B and Series C Preferred Stock vote equally with the shares of the common stock of the Company, and not as a separate class, at any annual or special meeting of stockholders of the Company and may act by written consent in the same manner as the common stock. In the event of any such vote or action by written consent, each holder of shares of Series A, Series B and Series C Preferred Stock shall be entitled to that number of votes equal to the whole number of shares of common stock into which such holder s aggregate number of shares of Preferred Stock are convertible as of the close of business on the record date fixed for such vote or the effective date of such written consent. Except as otherwise provided in the Company s Certificate of Incorporation or as required by law (in which case, holders of shares of Series A-1 Preferred Stock may act by written consent in the same manner as the common stock), shares of Series A-1 Preferred Stock are non-voting.

Liquidation Preference

In the event of any liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, before any distribution or payment is made to the holders of Series A Preferred Stock, Series A-1 Preferred Stock or common stock, the holders of Series B and Series C Preferred Stock are entitled to be paid, on a pari passu basis, out of the assets of the Company an amount per share equal to the original purchase price of Series B and C Preferred Stock, plus all accumulated and unpaid dividends on the Series B and Series C Preferred Stock. If, upon any such liquidation, dissolution, or winding up, the assets of the Company shall be insufficient to make payment in full of the liquidation preference to all holders of Series B and Series C Preferred Stock, then such assets shall be distributed to the holders of Series B and Series C Preferred Stock, on a pari passu basis, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

After the payment of the full liquidation preferences of the Series B and Series C Preferred Stock, but before any distribution or payment is made to the holders of Series A-1 Preferred Stock or common stock, the holders of Series A Preferred Stock are entitled to be paid out an amount per share equal to the original purchase price of the Series A Preferred Stock, plus all accumulated and unpaid dividends on the Series A Preferred Stock. If, upon any such liquidation, dissolution, or winding up, the assets of the Company shall be insufficient to make payment in full of the liquidation preference to all holders of Series A Preferred Stock, then such assets shall be distributed to the holders of Series A Preferred Stock ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

10. Convertible Preferred Stock (Continued)

After the payment of the full liquidation preferences of the Series A, Series B, and Series C Preferred Stock, but before any distribution or payment is made to the holders of common stock, the holders of Series A-1 Preferred Stock are entitled to be paid out an amount per share equal to the original purchase price of the Series A-1 Preferred Stock, plus all accumulated and unpaid dividends on the Series A-1 Preferred Stock. If, upon any such liquidation, dissolution, or winding up, the assets of the Company shall be insufficient to make payment in full of the liquidation preference to all holders of Series A-1 Preferred Stock, then such assets shall be distributed to the holders of Series A-1 Preferred Stock ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

After the payment of the full liquidation preferences of the Series A, Series A-1, Series B and Series C Preferred Stock, the assets of the Company legally available for distribution, if any, will be distributed on a pro-rata basis to the holders of common stock and Series A, Series B, and Series C Preferred Stock (all on an as-if-converted to common stock basis).

Conversion Rights

Optional Conversion

The shares of Series A, Series A-1, Series B and Series C Preferred Stock are convertible into shares of common stock at the option of the shareholders at any time after the date of issuance. Each share of Preferred Stock will be converted into shares of common stock at the applicable Series A, Series A-1, Series B and Series C conversion rate then in effect, which is calculated by dividing the original issue price by the respective conversion price. The conversion prices for Series A, Series A-1, Series B and Series C Preferred Stock are equal to $1.662 per share, $3.324 per share, $4.986 per share and $6.648 per share, respectively, and are subject to adjustments as set forth in the Company s Certificate of Incorporation, as amended. As such, as of December 31, 2011 and 2012 and March 31, 2013 (unaudited), the shares of the Series A, Series A-1, Series B and Series C Preferred Stock were all convertible into shares of common stock on a 1-for-0.601685 basis.

Automatic Conversion

Each share of Preferred Stock will automatically be converted into shares of common stock: (i) at any time upon the affirmative election of the holders of at least 75% of the then-outstanding shares of Series A Preferred Stock, or (ii) immediately upon closing of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock on the NASDAQ Global Market or New York Stock Exchange in which (1) the per share price is at least $9.00 (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like) and (2) the aggregate offering proceeds from the offering are at least $40,000. The conversion prices and rates for each series of Preferred Stock are the same in the event of an automatic conversion as they would be in the event of an optional conversion.

Upon both an automatic conversion and an optional conversion, the board of directors can elect to either pay any accumulated and unpaid dividends in cash or convert those dividends into additional shares of common stock to be determined by dividing each stockholder s accumulated and unpaid dividends by the fair value of the Company s common stock on the date of conversion, as determined by the board of directors.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

10. Convertible Preferred Stock (Continued)

Redemption Rights

There are no redemption rights afforded the holders of Series A, Series A-1, Series B and Series C Preferred Stock. The holders of Preferred Stock have liquidation rights in the event of a deemed liquidation that, in certain situations, is not solely within the control of the Company. Therefore, the Series A, Series A-1, Series B and Series C Preferred Stock is classified outside of stockholders deficit.

Reissuance

Any shares of Series A, Series A-1, Series B or Series C Preferred Stock that are converted into common stock will be canceled and will not be reissued by the Company.

11. Common Stock

The Company s Certificate of Incorporation, as amended, authorizes the Company to issue 25,041,667 shares of $0.001 par value common stock.

In February 2013, the board of directors of the Company approved an amendment of the Company s Certificate of Incorporation. The amendment to the Certificate of Incorporation increased the number of authorized shares of Series C Preferred Stock to 3,050,000, decreased the number of authorized shares of Series B Preferred Stock to 5,141,667 and increases the number of authorized shares of common stock to 25,041,667.

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company s stockholders. Common stockholders are entitled to receive dividends, as may be declared by the board of directors, if any, subject to the preferential dividend rights of the Series A, Series A-1, Series B and Series C Preferred Stock. As of December 31, 2011 and 2012 and March 31, 2013 (unaudited), the board of directors has not declared any dividends in any period.

As of December 31, 2011 and 2012 and March 31, 2013 (unaudited), the Company had reserved 10,258,603 shares, 13,554,062 shares and 14,126,674 shares, respectively, of common stock for the conversion of the Series A, Series A-1, Series B and Series C Preferred Stock (Note 10) and for the exercise of outstanding common stock options and restricted common stock (Note 12).

During the period from December 1, 2010 (inception) to March 31, 2013 (unaudited), the Company sold 300,841 shares of common stock to its founders for cash proceeds of $500. In addition, the Company issued common stock pursuant to the 2010 Equity Incentive Plan during the year ended December 31, 2012 and the three months ended March 31, 2013 (unaudited) (Note 12). During the years ended December 31, 2011 and 2012, the Company did not reacquire from its terminated employees any unvested shares of common stock that had been issued upon the exercise of a stock option prior to its vesting. During the three months ended March 31, 2013 (unaudited), the Company reacquired 32,089 unvested shares of common stock from a terminated employee for $5.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

12. Stock-Based Awards

2010 Equity Incentive Plan

In 2010, the Company s board of directors adopted the 2010 Equity Incentive Plan (the 2010 Plan). The 2010 Plan provides for the Company to sell or issue common stock or restricted common stock and to grant incentive stock options or nonqualified stock options for the purchase of common stock with a maximum term of ten years to employees, members of the board of directors and consultants of the Company. The Company reserved 2,166,064 shares of its common stock for issuance under the 2010 Plan. As of December 31, 2012 and March 31, 2013 (unaudited), 260,816 shares and 42,353 shares, respectively, of common stock remained available for issuance under the 2010 Plan.

The 2010 Plan permits the exercise of stock options granted under the plan before the options are fully vested. If a stock option is early exercised in this circumstance, the issued common stock is subject to restrictions on the sale or transfer by the holder that lapse according to the vesting terms of the early-exercised stock option. Unvested shares may not be sold or transferred by the holder. In the event of termination of the holder s employment, any unvested shares received upon early exercise are subject to repurchase by the Company, typically at the lesser of (1) the original purchase price per share or (2) the fair value of the common share on the date of termination. During the year ended December 31, 2012, the Company granted two restricted stock awards that were subject to repurchase at the greater of (1) the original purchase price per share or (2) the fair value of the common share on the date of termination.

Under the 2010 Plan, the Company has 90 days from the effective termination of the holder s employment or service to repurchase unvested shares that are issued upon the exercise of a stock award prior to its vesting. If, after 90 days, the Company elects not to repurchase these unvested shares, the shares become vested in full. The Company would then apply modification accounting and any resulting compensation expense would be immediately recognized related to the award. Upon vesting, these shares would be considered issued and outstanding shares of common stock.

Retrospective Reassessment of the Fair Value of Common Stock

As required by the 2010 Plan, the exercise price for awards granted is not to be less than the fair market value of common stock as estimated by the Company s board of directors as of the date of grant. The Company values its ordinary shares by taking into consideration its most recently available valuation of common stock performed by management and the board of directors as well as additional factors which may have changed since the date of the most recent contemporaneous valuation through the date of grant. Between October 4, 2012 and February 28, 2013, the board of directors granted stock options for the purchase of 276,334 shares of common stocks with a weighted-average exercise price of $0.43 per share and 76,496 shares of restricted stock awards with a weighted-average grant date fair value of $0.43, both based on its determination of the value of common stock as of the date of grant. On February 28, 2013, the board of directors approved the pursuit of an initial public offering of the Company s common stock. As a result, in connection with the preparation of the Company s financial statements for the year ended December 31, 2012 and the three months ended March 31, 2013, the Company reexamined, for financial reporting purposes only, the fair value of common stock during 2012 and during the three months ended March 31, 2013. In connection with that reexamination, the Company determined that a retrospective valuation of the fair value of common stock as of October 4, 2012 was appropriate due to acceleration of the timeframe to a potential liquidity event, the proposed initial public offering, which had not been contemplated in the determination of the original fair value on these dates, among other factors. Based on this analysis, the fair value of common stock was

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

12. Stock-Based Awards (Continued)

determined to be $1.06 at October 4, 2012 and $2.59 at December 22, 2012 and remained unchanged through February 28, 2013, the date of the last stock-based award granted by the Company as of March 31, 2013 (unaudited). As a result, the grant-date fair value of each of the awards granted on October 4, 2012 was revalued to reflect an underlying common stock fair value of $1.06 and the grant-date fair value of each of the awards granted between December 22, 2012 and February 28, 2013 was revalued to reflect an underlying common stock fair value of $2.59. The difference between the original estimated fair value and the reassessed fair value of the Company s common stock is being, and will continue to be, recorded as additional compensation expense in the statement of operations over the requisite service periods.

Stock Options

During the years ended December 31, 2011 and 2012 and the three months ended March 31, 2013 (unaudited), the Company granted 1,040,307, 588,775 and 189,096 stock options, respectively, to certain employees, non-employee consultants and directors. The vesting conditions for most of these awards are time-based, and the awards typically vest 25% after one year and monthly thereafter for the next 36 months. Awards typically expire after 10 years. The 2010 Plan allows for the early exercise of unvested stock options subject to certain restrictions, including the ability of the Company to repurchase such options upon an option holder s termination of employment with the Company if such options have not yet vested.

The Company values its common stock by taking into consideration its most recently available valuation of common stock performed by management and the board of directors, as well as additional factors which may have changed from the date of the most recent contemporaneous valuation through the date of grant.

The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes option-pricing model. The Company historically has been a private company and lacks company-specific historical and implied volatility information. Therefore, it estimates its expected stock volatility based on the historical volatility of its publicly traded peer companies and expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded stock price. The expected term of the Company s stock options has been determined utilizing the simplified method as the Company has insufficient historical experience for option grants overall, rendering existing historical experience irrelevant to expectations for current grants. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

The relevant data used to determine the value of the stock option grants is as follows, presented on a weighted average basis:

	Year Ended December 31,		Three Months Ended March 31, 2013 (unaudited)
	2011	2012	

Risk-free interest rate	1.94%	0.90%	1.08%
Expected term (in years)	5.8	6.0	6.0
Expected volatility	67%	67%	67%
Expected dividend yield	0%	0%	0%

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

12. Stock-Based Awards (Continued)

The following table summarizes stock option activity for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2013 (unaudited):

	Shares Issuable Under Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value
Outstanding, as of December 31, 2010		$		
Granted	1,040,307	0.25		
Outstanding, as of December 31, 2011	1,040,307	$ 0.25		
Granted	588,775	0.40		
Exercised	(935,348)	0.28		
Forfeited	(123,884)	0.42		
Expired	(5,214)	0.43		
Outstanding, as of December 31, 2012	564,636	$ 0.32	9.0	$ 1,286
Granted	189,096	0.45		
Exercised	(229,707)	0.42		
Forfeited	(15,044)	0.23		
Expired				
Outstanding, as of March 31, 2013 (unaudited)	508,981	$ 0.30	8.8	$ 2,673
Options vested and expected to vest, as of December 31, 2012	542,040	$ 0.32	9.0	$ 1,234
Options exercisable as of December 31, 2012	564,636	$ 0.32	9.0	$ 1,286
Options vested and expected to vest, as of March 31, 2013 (unaudited)	488,622	$ 0.32	8.8	$ 2,566
Options exercisable as of March 31, 2013 (unaudited)	508,981	$ 0.30	8.8	$ 2,673

No options were exercised as of December 31, 2011. As of December 31, 2012, options for the purchase of 935,348 shares of common stock were exercised, of which 420,410 were unvested and subject to repurchase. As of March 31, 2013 (unaudited), options for the purchase of 1,132,966 shares of the Company s common stock (net of repurchased shares) have been exercised, of which 556,252 are unvested and subject to

repurchase. Under the authoritative guidance, early exercise is not considered an exercise for accounting purposes and, therefore, any payment for unvested shares is recognized as a liability at the original exercise price. As of December 31, 2011 and 2012 and the three months ended March 31, 2013 (unaudited), the liability related to the early exercise of awards was $0, $158 and $213, respectively, and was recorded in other current liabilities and other long-term liabilities. During the three months ended March 31, 2013 (unaudited), the Company repurchased 32,089 unvested shares which were previously early exercised. No shares were repurchased by the Company during either of the years ended December 31, 2011 and 2012.

The aggregate intrinsic value of options is calculated as the difference between the exercise price of the options and the fair value of the Company s common stock for those options that had exercise prices lower than the fair value of the Company s common stock. The aggregate intrinsic value of stock options exercised was $0 and $1,262 for the three months ended March 31, 2012 and 2013 (unaudited), respectively. The aggregate intrinsic value of stock options exercised was $2,160 for the year ended December 31, 2012. No options were exercised during the year ended December 31, 2011.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

12. Stock-Based Awards (Continued)

The Company received cash proceeds of $266 and $97 from the early exercise of stock options for the year ended December 31, 2012 and the three months ended March 31, 2013 (unaudited), respectively. The weighted average grant date fair value of options granted during the years ended December 31, 2011 and 2012 and the three months ended March 31, 2013 (unaudited) was $0.15, $0.33 and $0.45, respectively.

Restricted Common Stock

The Company s 2010 plan provides for the award of restricted stock. The Company has granted restricted common stock with time-based vesting conditions. Unvested shares of restricted common stock may not be sold or transferred by the holder. These restrictions lapse according to the time-based vesting.

During the three months ended March 31, 2013 (unaudited), the Company issued 76,496 shares of restricted stock for no proceeds. The vesting of these awards is time-based, with terms between two and four years.

During the year ended December 31, 2012, the Company issued 58,013 shares of restricted stock for no proceeds. The vesting of these awards is time-based, with terms between two and four years. During the year ended December 31, 2012, the Company also sold 347,238 shares of restricted stock to an employee. The vesting of these shares is time-based, with terms between two and four years. The Company did not record compensation expense related to this award, as the shares were sold at fair value.

These restricted stock awards were subject to repurchase, such that the Company has the right, but not the obligation, to repurchase unvested shares upon the employee s termination at the greater of (1) the original purchase price per share or (2) the fair value of the common share on the date of termination. The Company has concluded, at each reporting date, that is it not probable that the two employees will be terminated and that its repurchase right will become exercisable. As such, these restricted stock awards are classified as equity awards, and compensation expense related to them is equal to the excess, if any, of the fair value of the Company s common stock on date of grant over the original purchase price per share, multiplied by the number of shares of restricted common stock issued.

The Company did not issue any restricted stock prior to December 31, 2011. The table below summarizes activity relating to restricted stock for the year ended December 31, 2012 and the three months ended March 31, 2013 (unaudited):

	Shares	Weighted Average Grant Date Fair Value
Unvested restricted common stock as of December 31, 2011		$
Restricted common stock issued	405,251	0.40
Restricted common stock vested	(15,042)	0.40
Restricted common stock forfeited		
Unvested restricted common stock as of December 31, 2012	390,209	$ 0.40

Restricted common stock issued	76,496		2.59
Restricted common stock vested	(1,379)		2.59
Restricted common stock forfeited			
Unvested restricted common stock as of March 31, 2013 (unaudited)	465,326	$	0.75

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

12. Stock-Based Awards (Continued)

As of December 31, 2012 and March 31, 2013 (unaudited), 390,209 and 465,326 shares, respectively, related to restricted stock awards were unvested and subject to repurchase.

The Company received cash proceeds of $139 and $0 from the issuance of restricted stock during the year ended December 31, 2012 and the three months ended March 31, 2013 (unaudited), respectively.

The aggregate intrinsic value of restricted stock awards is calculated as the difference between the grant date fair value of the restricted stock awards and the fair value of the Company s common stock. For the year ended December 31, 2012, the aggregate intrinsic value of vested restricted stock awards was $39 and was $127 for restricted stock awards expected to vest. For the three months ended March 31, 2013 (unaudited), the aggregate intrinsic value of vested restricted stock awards was $4 and was $428 for restricted stock awards expected to vest. The weighted average remaining contractual term for restricted stock awards as of December 31, 2012 and March 31, 2013 (unaudited) was 9.7 years and 9.6 years, respectively. The fair value of restricted stock awards that vested during the year ended December 31, 2012 and the three months ended March 31, 2013 (unaudited) was $6 and $4, respectively.

Stock-Based Compensation

The Company recognizes compensation expense for only the portion of awards that are expected to vest. In developing a forfeiture rate estimate, the Company has considered its historical experience to estimate pre-vesting forfeitures for service-based awards. The impact of a forfeiture rate adjustment will be recognized in full in the period of adjustment, and if the actual forfeiture rate is materially different from the Company s estimate, the Company may be required to record adjustments to stock-based compensation expense in future periods.

The Company recorded stock-based compensation expense related to stock options and restricted stock for the years ended December 31, 2011 and 2012 and March 31, 2012 and 2013 (unaudited) as follows:

	Year Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
			(unaudited)	
Research and development	$ 10	$ 11	$	$ 31
General and administrative	16	95	20	72
	$26	$ 106	$ 20	$ 103

The Company had an aggregate of $212 and $16 of unrecognized stock-based compensation expense for options outstanding and restricted stock awards, respectively, as of December 31, 2012, which is expected to be recognized over a weighted average period of 1.6 years.

The Company had an aggregate of $558 and $205 of unrecognized stock-based compensation expense for options outstanding and restricted stock awards, respectively, as of March 31, 2013 (unaudited), which is expected to be recognized over a weighted average period of 1.9 years.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

13. Commitments and Contingencies

Leases and Services Agreements

The Company incurred rent expense of $84 and $158 for the years ended December 31, 2011 and 2012, respectively. The Company incurred rent expense of $31 and $34 for the three months ended March 31, 2012 and 2013 (unaudited), respectively.

Future minimum lease payments for operating leases as of December 31, 2012 are as follows:

Year ending December 31,	
2013	$ 37
2014 and Thereafter	
Total	$ 37

Pursuant to the terms of the lease agreements, the Company paid $21 and $38 in security deposits for the years ended December 31, 2011 and 2012, respectively, of which $21 and $31, respectively, remained on deposit at year end. As of March 31, 2013 (unaudited), $4 remained on deposit.

Heartland House

On September 1, 2011, the Company entered into an office space lease for its corporate headquarters in Kansas City, Kansas with MPM Heartland House, LLC, a related party (Note 16). The term of the lease was from September 1, 2011 through December 31, 2012 and the Company currently leases this space on a month-to-month basis. Monthly rent payments were made in the amount of $2.

New York Office Space

On August 5, 2011, the Company entered a lease for office space located at 117 and 119 East 55th Street, New York, NY with Cacophony, LLC. The term of the lease was from September 1, 2011 through December 31, 2011. The monthly payments during this period were $9. The lease was renewed on January 1, 2012 for a period of twelve months in the amount of $9 per month. On May 31, 2012, the lease was terminated, and the Company entered into a new lease on June 1, 2012. The lease term is from June 1, 2012 to May 31, 2013. Monthly payments are made in the amount of $7. During both fiscal 2011 and fiscal 2012, part of the leased premises was sublet for total sublease income of $12 and $21, respectively, which is recognized in other income in the Company s statement of operations.

On January 31, 2013, the June 1, 2012 lease was terminated.

Services Agreement

On January 1, 2011, the Company entered into a services agreement pursuant to which the Company subleases office space (30 days prior written notice is required to terminate) located in Kansas City, Kansas with MPM Asset Management, LLC, a related party (Note 16). The

Company also receives certain office-related services under the agreement. Monthly payments are made in the amount of $3.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

13. Commitments and Contingencies (Continued)

On February 9, 2013, the Company entered into an administrative services agreement pursuant to which the Company subleases office space located at 200 Clarendon Street, Boston, MA from MPM Asset Management, LLC, a related party (Note 16) and it provides certain office-related services to the Company. The term of the agreement is from February 9, 2013 through December 31, 2013. Monthly payments are to be made during this period in the amount of $6. During the year ended December 31, 2012 and the three months ended March 31, 2013 (unaudited), the Company recognized expense of $0 and $7 related to this agreement, respectively.

Litigation and Contingencies Related to Use of Intellectual Property

From time to time, the Company may become subject to legal proceedings, claims and litigation arising in the ordinary course of business. The Company currently is not a party to any threatened or pending litigation. However, third parties might allege that the Company or its licensors are infringing their patent rights or that the Company is otherwise violating their intellectual property rights. Such third parties may resort to litigation against the Company or its licensors, against which the Company has agreed to indemnify. With respect to some of these patents, the Company expects that it will be required to obtain licenses and could be required to pay license fees or royalties, or both. These licenses may not be available on acceptable terms, or at all. A costly license, or inability to obtain a necessary license, could have a material adverse effect on the Company s financial condition, results of operations or cash flows. The Company accrues contingent liabilities when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

Indemnification Agreements

In the ordinary course of business, the Company may provide indemnifications of varying scope and terms to customers, vendors, lessors, business partners, and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements, from services to be provided by the Company, or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with members of its board of directors that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is, in many cases, unlimited. To date, the Company has not incurred any material costs as a result of such indemnifications. The Company does not believe that the outcome of any claims under indemnification arrangements will have a material effect on its financial position, results of operations or cash flows, and it has not accrued any liabilities related to such obligations in its financial statements as of December 31, 2011 or 2012 or as of March 31, 2013 (unaudited).

14. Income Taxes

There is no provision for income taxes because the Company has historically incurred operating losses and maintains a full valuation allowance against its net deferred tax assets. The reported amount of income tax expense differs from the amount that would result from applying domestic federal statutory tax rates to pretax losses primarily because of changes in valuation allowance. In all periods presented, all income before income taxes was sourced from the United States.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

14. Income Taxes (Continued)

A reconciliation of the U.S. federal statutory income tax rate to the Company s effective income tax rate is as follows:

	Year Ended December 31,	
	2011	2012
Federal statutory income tax rate	34.0%	34.0%
State taxes, net of federal benefit	2.6	2.6
Federal research and development tax credit	1.2	0.0
Change in deferred tax asset valuation allowance	(37.8)	(36.6)
Effective income tax rate	0.0%	0.0%

Net deferred tax assets as of December 31, 2011 and 2012 consisted of the following:

	December 31,	
	2011	2012
Net operating loss carry forwards	$ 78	$ 388
Capitalized start-up costs	740	1,328
Tax credit carryforwards	52	71
Intangibles, net	2,218	2,605
Other temporary differences		479
Capitalized research and development, net	724	3,192
Depreciation		2
Total gross deferred tax assets	3,812	8,065
Valuation allowance	(3,812)	(8,065)
Net deferred tax assets	$	$

As of December 31, 2012, the Company had net operating loss carryforwards for federal and state income tax purposes of $1,064 and $972, respectively, which begin to expire in fiscal year 2031 and 2021, respectively. The Company also has available research and development tax credit carryforwards for federal and state income tax purposes of $42 and $45, respectively, which begin to expire in fiscal year 2031 and until utilized, respectively.

Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets, which are comprised principally of net operating loss carryforwards and research and development credits. Under the applicable accounting standards,

management has considered the Company s history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of federal and state deferred tax assets. Accordingly, a full valuation allowance of $3,812 and $8,065, has been established at December 31, 2011 and 2012, respectively.

Utilization of the net operating loss and research and development credit carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986 due to ownership change limitations that have occurred previously or that could occur in the future. These ownership changes may limit the amount of net operating loss and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

14. Income Taxes (Continued)

Changes in the valuation allowance for deferred tax assets during the years ended December 31, 2011 and 2012 were as follows:

	Year Ended December 31,	
	2011	2012
Valuation allowance as of beginning of year	$ 2,504	$ 3,812
Decreases recorded as benefit to income tax provision		
Increases recorded to income tax provision	1,308	4,253
Valuation allowance as of end of year	$ 3,812	$ 8,065

The Company has not recorded any amounts for unrecognized tax benefits as of December 31, 2011 and 2012.

The Company files tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by federal and state jurisdictions, where applicable. There are currently no pending income tax examinations. The Company s tax years are still open under statute from 2010 to the present. The Company s policy is to record interest and penalties related to income taxes as part of its income tax provision.

15. 401(k) Plan

In September 2011, the Company established a 401(k) plan for all of its employees. This plan covers substantially all of its employees who meet the minimum age requirement. Under the terms of the plan, the Company contributes on a payroll basis up to 4% of an employee s salary or cash bonus.

During the years ended December 31, 2011 and 2012, the Company recognized $0 and $20, respectively, of expense related to its contributions to this plan. During the three months ended March 31, 2012 and 2013 (unaudited), the Company recognized $0 and $26 of expense related to its contributions to the plan.

16. Related Party Transactions

The Company entered into consulting agreements for business management activities with certain members of the Company s board of directors. Consulting fees paid for the years ended December 31, 2011 and 2012 were $0 and $51, respectively.

The Company entered into a lease agreement with MPM Heartland House, LLC, a company in which the current Chief Executive Officer and President of the Company, also a director of the Company, is the principal owner (Note 13). Rent paid for the years ended December 31, 2011 and 2012 was $8 and $26, respectively. Rent paid for the three months ended March 31, 2012 and 2013 (unaudited) was $6 and $10, respectively.

The Company has entered into a services agreement to sublease office space and receive office related services from MPM Asset Management, LLC, an affiliate of two of the Company s principal stockholders (Note 13). In addition, one of the Company s directors is a managing director and an executive officer of MPM Asset Management, LLC. Rent paid for the years ended December 31, 2011 and 2012 was $42 and $42, respectively. Rent paid for the three months ended March 31, 2012 and 2013 (unaudited) was $7 and $17, respectively.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

16. Related Party Transactions (Continued)

The Company entered into two Exclusive IP License Agreements and an API Development Agreement with RaQualia Pharma, Inc., who holds the Company s Series A-1 Preferred Stock (Note 9).

In 2011, the Company paid $262 to MPM Asset Management, LLC, one of the Series A Preferred Stockholders, for costs incurred in 2010 in connection with the incorporation of the Company and the Series A Preferred Stock financing. In addition, the Company paid to MPM Asset Management, LLC, $42 for financial and administrative services and $21 for financial services in 2011 and 2012, respectively, which were recorded in general and administrative expense in the Company s statement of operations. During the three months ended March 31, 2012 and 2013 (unaudited), the Company paid MPM Asset Management, LLC $13 and $1, respectively, for financial services, which was recorded in general and administrative expenses in the Company s statement of operations.

17. Net Loss Per Share and Unaudited Pro Forma Net Loss Per Share

Net Loss Per Share

Basic and diluted net loss per share attributable to common stockholders was calculated as follows for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013 (unaudited):

	Year Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
			(unaudited)	
Basic and diluted net loss per share attributable to common stockholders:				
Numerator:				
Net loss	$ (3,464)	$ (11,636)	$ (2,245)	$ (3,293)
Modification of Series A convertible preferred stock	(276)			
Unaccreted dividends on convertible preferred stock	(902)	(2,035)	(444)	(773)
Net loss attributable to common stockholders	$ (4,642)	$ (13,671)	$ (2,689)	$ (4,066)
Denominator:				
Weighted average common shares outstanding - basic and diluted	300,841	395,918	300,841	860,350
Net loss per share attributable to common stockholders - basic and diluted	$ (15.43)	$ (34.53)	$ (8.94)	$ (4.73)

Stock options for the purchase of 1,040,307 and 952,957 shares of common stock were excluded from the computation of diluted net loss per share attributable to common stockholders for the years ended December 31, 2011 and 2012, respectively, because those options had an anti-dilutive impact due to the net loss attributable to common stockholders incurred for the period. Stock options for the purchase of 1,040,307 and 1,065,233 shares of common stock were excluded from the computation of diluted net loss per share attributable to common stockholders for the three months ended March 31, 2012 and 2013, respectively, because those options had an anti-dilutive impact due to the net loss attributable to common stockholders incurred for the period.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

17. Net Loss Per Share and Unaudited Pro Forma Net Loss Per Share (Continued)

Unaudited Pro Forma Net Loss Per Share

The unaudited pro forma basic and diluted net loss per share attributable to common stockholders for the year ended December 31, 2012 and the three months ended March 31, 2013 gives effect to adjustments arising upon the closing of an initial public offering. The unaudited pro forma net loss attributable to common stockholders used in the calculation of unaudited basic and diluted pro forma net loss per share attributable to common stockholders does not include the effects of the unaccreted dividends on convertible preferred stock, because it assumes that the conversion of convertible preferred stock into common stock had occurred on the later of January 1, 2012 or the issuance date of the convertible preferred stock.

Unaudited pro forma basic and diluted net loss per share attributable to common stockholders for the year ended December 31, 2012 and the three months ended March 31, 2013 has been prepared to give effect to (i) the automatic conversion of all outstanding shares of convertible preferred stock as of December 31, 2012 and March 31, 2013 into 12,178,807 shares and 12,596,115 shares of common stock, respectively, and (ii) the issuance of 490,787 shares and 619,677 shares, respectively, of common stock to the holders of series A, B and C convertible preferred stock immediately prior to the closing of this offering in satisfaction of accumulated and unpaid dividends, as if the conversion had occurred on the later of January 1, 2012 or the issuance date of the convertible preferred stock.

The computation of unaudited pro forma net loss per share attributable to common stockholders is as follows:

	Year Ended December 31, 2012 (unaudited)	Three Months Ended March 31, 2013 (unaudited)
Pro forma basic and diluted net loss per share attributable to common stockholders:		
Numerator:		
Net loss attributable to common stockholders	$ (13,671)	$ (4,066)
Unaccreted dividends on convertible preferred stock	2,035	773
Pro forma net loss attributable to common stockholders	$ (11,636)	$ (3,293)
Denominator:		
Weighted average common shares outstanding - basic and diluted	395,918	860,350
Pro forma adjustment for assumed automatic conversion of all outstanding shares of convertible preferred stock immediately prior to the closing of this offering	11,069,136	13,075,983
Pro forma weighted average common shares outstanding - basic and diluted	11,465,054	13,936,333

Pro forma net loss per share attributable to common stockholders - basic and diluted	$ (1.01)	$ (0.24)

18. Subsequent Events

For its financial statements as of December 31, 2012 and for the year then ended, the Company evaluated subsequent events through March 20, 2013, the date on which those financial statements were available to be issued.

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

18. Subsequent Events (Continued)

On January 30, 2013, the Company closed a second tranche of Series C Preferred Stock financing and issued 650,459 shares at a purchase price of $4.00 per share for gross proceeds of $2,602. In connection with the Series C Preferred Stock financing, the Company paid issuance costs totaling $8. The rights and preferences of the Series C Preferred Stock issued in January 2013 are identical to the rights and preferences of the Series C Preferred Stock issued on December 28, 2012 (Note 10).

On February 11, 2013, the Company closed a third tranche of Series C Preferred Stock financing and issued 43,112 shares at a purchase price of $4.00 per share for gross proceeds of $172. In connection with the Series C Preferred Stock financing, the Company paid issuance costs totaling $1. The rights and preferences of the Series C Preferred Stock issued in February 2013 are identical to the rights and preferences of Series C Preferred Stock issued on December 28, 2012 (Note 10).

On May 22, 2013, the Company effected a 1-for-1.662 reverse stock split of its issued and outstanding shares of common stock and a proportional adjustment to the conversion ratio for each series of Convertible Preferred Stock (Note 10). Accordingly, all share and per share amounts for all periods presented in these financial statements and notes thereto have been adjusted retroactively, where applicable, to reflect the reverse stock split and adjustment of the preferred share conversion ratios.

19. Subsequent Events (unaudited)

For its interim financial statements as of March 31, 2013 (unaudited) and for the three months then ended, the Company evaluated subsequent events through April 29, 2013, the date on which those financial statements were available to be issued, and through May 23, 2013, the date on which those financial statements were reissued.

In May 2013, the Company entered into a lease with MPM Heartland House LLC, a related party (Note 16), for its corporate headquarters covering the period from May 1, 2013 to September 30, 2015. The rent payable under the lease is $63 per year.

In May 2013, the Company entered into a services agreement, which supersedes the January 2011 agreement (Note 13), pursuant to which the Company subleases office space in its corporate headquarters from MPM Asset Management, a related party (Note 16), and it provides the Company with certain office-related services. This agreement may be terminated by either party for a material breach of any provision of the agreement upon 10 days prior written notice. The fees payable under the agreement are $6 per month during the period from May 1, 2013 through September 30, 2015.

On May 20, 2013, the Company s stockholders approved the 2013 Incentive Award Plan, which will become effective upon the effective date of the Company s initial public offering. The 2013 Incentive Award Plan permits the Company to grant stock options, including incentive stock options and nonqualified stock options, restricted stock units, performance shares, other incentive awards, stock appreciation rights and cash awards to employees, consultants and directors of the Company. The total number of shares of common stock that may be issued under the plan will be 962,695 shares, plus any additional shares represented by awards outstanding under the 2010 Plan that are forfeited or lapse unexercised and which following the effective date are not issued under the 2010 Plan. The number of shares of common stock that may be issued under the plan is also subject to an annual increase on January 1 of each calendar year beginning in 2014 and ending in 2023, equal to the lesser of (i) 1,203,369 shares,

Table of Contents

ARATANA THERAPEUTICS, INC.

(A Development Stage Enterprise)

NOTES TO FINANCIAL STATEMENTS (Continued)

(Amounts in thousands, except share and per share data)

(Information as of March 31, 2013 and for the three months ended March 31, 2013 and 2012 is unaudited)

19. Subsequent Events (unaudited) (Continued)

(ii) 4% of the shares of common stock outstanding (on an as converted basis) on the final day of the immediately preceding calendar year and (iii) an amount determined by the board of directors.

On May 20, 2013, the Company s board of directors approved for grant (i) options to purchase 309,261 shares of common stock at an exercise price equal to the initial public offering price in this offering, and (ii) 11,883 shares of restricted stock. These awards will be granted to employees and directors under the 2013 Incentive Award Plan upon the effective date of the Company s initial public offering and in the case of the restricted stock, the day after such date.

Table of Contents

Table of Contents

5,500,000 Shares

Common Stock

PROSPECTUS

, 2013

Stifel

Lazard Capital Markets

William Blair

JMP Securities

Craig-Hallum Capital Group

Neither we nor any of the underwriters have authorized anyone to provide information different from that contained in this prospectus. When you make a decision about whether to invest in our common stock, you should not rely upon any information other than the information in this prospectus. Neither the delivery of this prospectus nor the sale of our common stock means that information contained in this prospectus is correct after the date of this prospectus. This prospectus is not an offer to sell or solicitation of an offer to buy these shares of common stock in any circumstances under which the offer or solicitation is unlawful.

Table of Contents

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the Securities and Exchange Commission registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and The NASDAQ Global Market listing fee.

	Amount
Securities and Exchange Commission registration fee	$ 8,667
FINRA filing fee	10,030
Initial NASDAQ Global Stock Market listing fee	125,000
Accountants fees and expenses	617,543
Legal fees and expenses	1,430,000
Blue Sky fees and expenses	15,000
Transfer Agent s fees and expenses	4,000
Printing and engraving expenses	230,000
Miscellaneous	60,665
Total expenses	$ 2,500,905

Item 14. Indemnification of Directors and Officers.

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides that no director of the Registrant shall be personally liable to it or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Table of Contents

Our bylaws provide that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys fees), liabilities, losses, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our bylaws provide that we will indemnify any Indemnitee who was or is a party to or threatened to be made a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys fees) actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriters will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us within the meaning of the Securities Act of 1933, as amended, or Securities Act, against certain liabilities.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding shares of capital stock issued by us since our inception in December 2010. Also included is the consideration received by us for such shares and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed.

(a) Issuances of Capital Stock

1. On December 2, 2010, we issued an aggregate of 300,841 shares of our common stock to our two founders at a price per share of $0.0017 per share for aggregate gross consideration of $500.

2. On December 27, 2010, we issued an aggregate of 9,999,999 shares of our Series A convertible preferred stock to five investors at a price per share of $1.00 for aggregate gross consideration of $9,999,999.

Table of Contents

3. On December 27, 2010, we issued an aggregate of 2,750,000 shares of our Series A-1 convertible preferred stock to one investor at a price per share of $2.00 for aggregate gross consideration of $5,500,000.

4. On November 1, 2011, we issued an aggregate of 2,500,000 shares of our Series B convertible preferred stock to 20 investors at a price per share of $3.00 for aggregate gross consideration of $7,500,000.

5. On December 2, 2011, we issued an aggregate of 70,833 shares of our Series B convertible preferred stock to five investors at a price per share of $3.00 for aggregate gross consideration of $212,499.

6. On February 15, 2012, we issued an aggregate of 2,570,834 shares of our Series B convertible preferred stock to 23 investors at a price per share of $3.00 for aggregate gross consideration of $7,712,502.

7. On December 28, 2012, we issued an aggregate of 2,349,541 shares of our Series C convertible preferred stock to 28 investors at a price per share of $4.00 for aggregate gross consideration of $9,398,164.

8. On January 30, 2013 we issued an aggregate of 650,459 shares of our Series C convertible preferred stock to 26 investors at a price per share of $4.00 for aggregate gross consideration of $2,601,836.

9. On February 11, 2013, we issued an aggregate of 43,112 shares of our Series C convertible preferred stock to two investors at a price per share of $4.00 for aggregate gross consideration of $172,448.

Each share of our convertible preferred stock is convertible into 0.601685 shares of our common stock.

No underwriters were involved in the foregoing sales of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All purchasers of shares of convertible preferred stock described above represented to us in connection with their purchase that they were accredited investors and were acquiring the shares for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(b) Grants and Exercise of Stock Options; Awards of Restricted Stock

1. From our inception in December 2010 through June 21, 2013, we granted stock options to purchase an aggregate of 1,818,175 shares of our common stock with exercise prices ranging from $0.15 to $5.57 per share, to certain of our employees and directors in connection with services provided to us by such parties. As of June 21, 2013, options to purchase 1,165,055 shares of common stock had been exercised and options to purchase 508,981 shares of common stock remained outstanding at a weighted average exercise price of $0.30 per share.

2. From our inception in December 2010 through June 21, 2013, we have issued an aggregate of 134,509 shares of our common stock to employees and directors in connection with awards of restricted stock pursuant to our incentive award plan for no cash consideration.

Upon the effective date of this registration statement, our board of directors expects to grant options to purchase 309,261 shares of our common stock at an exercise price equal to the initial public offering price in this offering and, on the day after such date, 11,883 shares of restricted stock

pursuant to the Company s 2013 Incentive Award Plan.

The stock options, the common stock issuable upon the exercise of such options and the common stock issued in connection with awards of restricted stock as described in this section (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees and directors, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 701 promulgated under the Securities Act or the exemption set forth in Section 4(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering. All recipients either received adequate information about us or had access, through employment or other relationships, to such information.

Table of Contents

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the securities had not been registered and the applicable restrictions on transfer.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

Exhibit Number	Description of Exhibit
1.1**	Form of Underwriting Agreement
3.1**	Certificate of Incorporation (currently in effect)
3.2**	Bylaws (currently in effect)
3.3**	Form of Restated Certificate of Incorporation (to be effective immediately prior to the closing of this offering)
3.4**	Form of Amended and Restated Bylaws (to be effective immediately prior to the closing of this offering)
4.1**	Specimen stock certificate evidencing the shares of common stock
5.1**	Opinion of Latham & Watkins LLP
10.1**	Second Amended and Restated Investors Rights Agreement, dated as of December 28, 2012, as amended May 22, 2013
10.2**	Second Amended and Restated Stockholders Agreement, dated as of December 28, 2012, as amended May 22, 2013
10.3**	Form of Indemnification Agreement for Directors and Officers
10.4**	Employment Agreement, dated September 6, 2012, by and between Steven St. Peter and Aratana Therapeutics, Inc., as amended April 26, 2013
10.5**	Employment Agreement, dated September 17, 2012, by and between Louise Mawhinney and Aratana Therapeutics, Inc., as amended April 29, 2013
10.6**	Employment Agreement, dated September 6, 2012, by and between Linda Rhodes and Aratana Therapeutics, Inc., as amended April 29, 2013
10.7**	Employment Agreement, dated December 18, 2012, by and between Julia Stephanus and Aratana Therapeutics, Inc., as amended April 29, 2013
10.8**	Employment Agreement, dated March 12, 2013, by and between Ernst Heinen and Aratana Therapeutics, Inc., as amended April 29, 2013
10.9(a)**	Aratana Therapeutics, Inc. 2010 Equity Incentive Plan
10.9(b)**	Amendment No. 1 to 2010 Equity Incentive Plan
10.9(c)**	Amendment No. 2 to 2010 Equity Incentive Plan
10.9(d)**	Form of Stock Option Grant Notice and Stock Option Agreement under 2010 Equity Incentive Plan
10.10(a)**	Aratana Therapeutics, Inc. 2013 Incentive Award Plan
10.10(b)**	Form of Stock Option Grant Notice and Stock Option Agreement under 2013 Incentive Award Plan
10.10(c)**	Form of Restricted Stock Grant Notice and Restricted Stock Agreement under 2013 Incentive Award Plan

Table of Contents

Exhibit Number	Description of Exhibit
10.11**	Non-Employee Director Compensation Program
10.12**	Lease, dated May 1, 2013, by and between MPM Heartland House, LLC and Aratana Therapeutics, Inc.
10.13**	Services Agreement, dated May 1, 2013, by and between Aratana Therapeutics, Inc. and MPM Asset Management LLC
10.14**	Administrative Services Agreement, dated February 19, 2013, by and between MPM Asset Management LLC and Aratana Therapeutics, Inc.
10.15**	Services Agreement, dated February 28, 2013, by and among Aratana Therapeutics, Inc., MPM Asset Management LLC and John W. Vander Vort
10.16**	Loan and Security Agreement, dated March 4, 2013, by and between Square 1 Bank and Aratana Therapeutics, Inc.
10.17**	Kansas Bioscience Research and Development (R&D) Voucher Program Grant Agreement, dated March 6, 2012, by and between Kansas Bioscience Authority and Aratana Therapeutics, Inc.
10.18**	Exclusive IP License Agreement for RQ-00000005, dated December 27, 2010, by and between Aratana Therapeutics, Inc. and RaQualia Pharma Inc.
10.19**	First Amendment to the Exclusive IP License Agreement for RQ-00000005, dated July 12, 2012, by and between Aratana Therapeutics, Inc. and RaQualia Pharma Inc.
10.20**	Exclusive IP License Agreement for RQ-00000007, dated December 27, 2010, by and between Aratana Therapeutics, Inc. and RaQualia Pharma Inc.
10.21**	First Amendment to the Exclusive IP License Agreement for RQ-00000007, dated July 12, 2012, by and between Aratana Therapeutics, Inc. and RaQualia Pharma Inc.
10.22**	API Development Agreement, dated July 12, 2012, by and between Aratana Therapeutics, Inc. and RaQualia Pharma Inc.
10.23**	Letter Agreement regarding RQ-00000008 Technology, dated July 12, 2012, by and between RaQualia Pharma Inc. and Aratana Therapeutics, Inc.
10.24**	Exclusive License, Development and Commercialization Agreement, effective as of December 5, 2012, by and between Pacira Pharmaceuticals, Inc. and Aratana Therapeutics, Inc.
10.25**	Supply Agreement, dated December 5, 2012, by and between Pacira Pharmaceuticals, Inc. and Aratana Therapeutics, Inc.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
23.2**	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
24.1**	Power of Attorney (included on signature page of the initial filing of the Registration Statement)

** Previously filed.
Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment pursuant to Rule 24b-2 under the Securities Exchange Act of 1934.

(b) **Financial Statement Schedules.** Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Table of Contents

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriter, at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

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

The undersigned hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

(4) In a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

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

Table of Contents

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

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

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this Amendment No. 6 to the Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts, on this 26th day of June, 2013.

ARATANA THERAPEUTICS, INC.

By: /s/ Steven St. Peter
Steven St. Peter, M.D.

President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 6 to the Registration Statement on Form S-1 has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
/s/ Steven St. Peter Steven St. Peter, M.D.	President, Chief Executive Officer and Director (principal executive officer)	June 26, 2013
/s/ Louise A. Mawhinney Louise A. Mawhinney	Chief Financial Officer (principal financial and accounting officer)	June 26, 2013
* Jay Lichter, Ph.D.	Chairman of the Board of Directors	June 26, 2013
* Robert Rip Gerber	Director	June 26, 2013
* Ronald L. Meeusen, Ph.D.	Director	June 26, 2013
* Linda Rhodes, V.M.D., Ph.D.	Director	June 26, 2013
* Craig Tooman	Director	June 26, 2013
* John Vander Vort, Esq.	Director	June 26, 2013

* By:

/s/ Steven St. Peter
Steven St. Peter, M.D.

Attorney-in-Fact

Table of Contents

EXHIBIT INDEX

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1.1**	Form of Underwriting Agreement
3.1**	Certificate of Incorporation (currently in effect)
3.2**	Bylaws (currently in effect)
3.3**	Form of Restated Certificate of Incorporation (to be effective immediately prior to the closing of this offering)
3.4**	Form of Amended and Restated Bylaws (to be effective immediately prior to the closing of this offering)
4.1**	Specimen stock certificate evidencing the shares of common stock
5.1**	Opinion of Latham & Watkins LLP
10.1**	Second Amended and Restated Investors Rights Agreement, dated as of December 28, 2012, as amended May 22, 2013
10.2**	Second Amended and Restated Stockholders Agreement, dated as of December 28, 2012, as amended May 22, 2013
10.3**	Form of Indemnification Agreement for Directors and Officers
10.4**	Employment Agreement, dated September 6, 2012, by and between Steven St. Peter and Aratana Therapeutics, Inc., as amended April 26, 2013
10.5**	Employment Agreement, dated September 17, 2012, by and between Louise Mawhinney and Aratana Therapeutics, Inc., as amended April 29, 2013
10.6**	Employment Agreement, dated September 6, 2012, by and between Linda Rhodes and Aratana Therapeutics, Inc., as amended April 29, 2013
10.7**	Employment Agreement, dated December 18, 2012, by and between Julia Stephanus and Aratana Therapeutics, Inc., as amended April 29, 2013
10.8**	Employment Agreement, dated March 12, 2013, by and between Ernst Heinen and Aratana Therapeutics, Inc., as amended April 29, 2013
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