Viking Therapeutics, Inc.
Form S-1
November 24, 2015
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As filed with the Securities and Exchange Commission on November 23, 2015

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

Viking Therapeutics, Inc.

(Exact name of Registrant as specified in its charter)

Delaware	**2834**	**46-1073877**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

Viking Therapeutics, Inc.

12340 El Camino Real, Suite 250

San Diego, CA 92130

(858) 704-4660

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

Brian Lian, Ph.D.

President and Chief Executive Officer

Viking Therapeutics, Inc.

12340 El Camino Real, Suite 250

San Diego, CA 92037

(858) 704-4660

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

Copies to:

Jeffrey T. Hartlin, Esq.

Paul Hastings LLP

1117 S. California Avenue

Palo Alto, California 94304

(650) 320-1804

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes 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, check the following box: ¨

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

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

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

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, par value $0.00001 per share	$11,500,000	$1,158.05

(1) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended, or the Securities Act. Includes the aggregate offering price of additional shares that the underwriters have the option to purchase to cover over-allotments.

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

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

Subject to Completion, Dated November 23, 2015

$10,000,000

Common Stock

Viking Therapeutics, Inc. is offering shares of its common stock in this offering.

Our shares of common stock are listed on the Nasdaq Capital Market under the symbol VKTX . On November 20, 2015, the last reported sale price of our common stock on the Nasdaq Capital Market was $4.44 per share.

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings with the Securities and Exchange Commission.

Investing in our common stock involves risks. See Risk Factors beginning on page 13.

	Per Share	Total
Public offering price	$	$
Underwriting discounts(1)		
Proceeds to us, before expenses		

(1) We refer you to Underwriting beginning on page 157 of this prospectus for additional information regarding total underwriter compensation.

We have granted the underwriters an option to purchase additional shares of our common stock from us at the public offering price of such security, less the underwriting discount, within 45 days of the date of this prospectus to cover over-allotments.

The underwriters expect to deliver the shares against payment in New York, New York on , 2015.

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

The date of this prospectus is , 2015

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You should rely only on the information contained in this prospectus. No dealer, salesperson or other person is authorized to give information that is not contained in this prospectus. This prospectus is not an offer to sell nor is it seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus is correct only as of the date of this prospectus, regardless of the time of the delivery of this prospectus or any sale of these securities.

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PROSPECTUS SUMMARY

This summary highlights selected information that is presented in greater detail elsewhere in this prospectus. Because it is only a summary, it does not contain all of the information you should consider before investing in our common stock and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information included elsewhere in this prospectus. Before you decide whether to purchase shares of our common stock, you should read this entire prospectus carefully, including the sections of this prospectus entitled Risk Factors, Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and the related notes included elsewhere in this prospectus. Unless the context otherwise requires, the terms Viking, we, us and our in this prospectus refer to Viking Therapeutics, Inc., and this offering refers to the offering contemplated in this prospectus.

The Company

We are a clinical-stage biopharmaceutical company focused on the development of novel, first-in-class or best-in-class therapies for metabolic and endocrine disorders. We have exclusive worldwide rights to a portfolio of five drug candidates in clinical trials or preclinical studies, which are based on small molecules licensed from Ligand Pharmaceuticals Incorporated, or Ligand. Our lead clinical program is VK5211, a first-in-class, orally available drug candidate currently in a Phase 2 clinical trial for acute rehabilitation following non-elective hip fracture surgery. Hip fracture is a common injury among persons aged 60 and older. VK5211 is a non-steroidal selective androgen receptor modulator, or SARM. A SARM is designed to selectively interact with a subset of receptors that have a normal physiologic role of interacting with naturally-occurring hormones called androgens. Broad activation of androgen receptors with drugs, such as exogenous testosterone, can stimulate muscle growth and improve bone mineral density, or BMD, but often results in unwanted side effects such as prostate growth, hair growth and acne. VK5211 has been shown to selectively produce the therapeutic benefits of testosterone in muscle and bone tissue, potentially accelerating rehabilitation and improving outcomes among hip fracture patients. We commenced a Phase 2 study of VK5211 in October 2015 and expect to complete the trial in the second half of 2016. In addition, we are also focused on the development of first-in-class, selective, small molecule agonists of the thyroid receptor beta, or TRß, for lipid disorders. Our lead TRß program is VK2809, a liver-selective, orally available prodrug of a potent small molecule TRß agonist. The TRß is known to regulate expression genes important for lipid metabolism, which we believe suggests potential therapeutic benefits for patients suffering from hypercholesterolemia, dyslipidemia and diseases resulting from accumulation of fat in liver tissue, such as non-alcoholic steatohepatitis, or NASH. We plan to initiate in the fourth quarter of 2015 a Phase 2 clinical trial of VK2809 in patients with hypercholesterolemia and elevated liver fat content. Our second TRß agonist is VK0214, which we are evaluating in the orphan disease known as X-linked adrenoleukodystrophy, or X-ALD. Preclinical studies of VK0214 in *in vitro* models of X-ALD showed that VK0214 has a positive effect on genes relevant to X-ALD. We plan to further evaluate VK0214 in an *in vivo* model of X-ALD in late-2015 and report preliminary results in 2016. Pending completion of this work, we expect to initiate clinical trials of VK0214 in X-ALD patients.

VK5211 for Hip Fracture

VK5211 is an orally available small molecule drug candidate in development for maintenance or improvement of lean body mass, or LBM, BMD and function in patients recovering from non-elective hip fracture surgery. VK5211 is a potent, tissue-selective, non-steroidal SARM. VK5211 belongs to a family of novel SARM compounds based on its effects on tissue-specific gene expression and other functional, cell-based technologies. We expect VK5211 to produce the therapeutic benefits of testosterone with improved safety, tolerability and patient acceptance due to a tissue-selective mechanism of action and an oral route of administration. Tissue selectivity is particularly important in treating patients recovering from non-elective hip fracture surgery, as these patients experience abnormally elevated

losses of muscle tissue and BMD. This results in a loss of muscle

strength, an increased risk of additional fractures and increased mortality. We believe the selective stimulation of androgen receptors in muscle and bone provides an attractive therapeutic approach for patients recovering from hip fractures. In Phase 1 clinical trials, subjects treated with VK5211 experienced increases in lean body mass following 21 days of treatment. We observed positive dose-dependent trends in functional exercise and strength measures consistent with anabolic activity. In addition, no drug-related serious adverse events were reported. In an established animal model of osteoporosis, treatment with VK5211 resulted in significant increases in BMD and bone strength. In October 2015, we commenced enrollment for a Phase 2 proof-of-concept clinical trial in patients recovering from non-elective hip fracture surgery, and we expect to enroll a total of 120 patients and complete this clinical trial in the second half of 2016.

VK5211 has been evaluated in three Phase 1 clinical trials. Based on these clinical and additional preclinical data, we believe VK5211 has the following important characteristics that may suggest therapeutic benefits in patients recovering from hip fracture surgery:

Improvement in lean body mass: Preliminary Phase 1 data suggest VK5211 rapidly stimulates the formation of lean body mass, an important property for the hip fracture recovery setting, where patients can lose up to 6% of lean body mass in the two months following injury.

Improvement in bone growth and density: VK5211 has demonstrated encouraging efficacy in a standard animal model of osteoporosis, demonstrating improved bone mineral content, density and strength. This may benefit patients following hip surgery, where loss of bone mineral density can exceed 12 times the background rate for patients with osteoporosis.

Encouraging tolerability: VK5211 has been well-tolerated at and above doses that we are currently administering in our Phase 2 clinical trial.

Novel mechanism of action: Based on the anabolic characteristics imparted by selective activation of the androgen receptor, we believe VK5211 may stimulate bone and muscle growth, without demonstrating adverse bone remodeling properties that are a potential concern for osteoporosis drugs such as bisphosphonates. We expect VK5211 s novel mechanism of action to provide critical bone and muscle growth promoting advantages.

Once-daily, oral convenience: Clinical data suggest that VK5211 has the potential to provide therapeutic benefits via once-daily oral dosing. This may represent an important advantage among elderly patients, relative to injectable protein or bisphosphonate therapies.

In October 2015, we commenced enrollment for a Phase 2 proof-of-concept clinical trial in patients recovering from non-elective hip fracture surgery, and we expect to enroll a total of 120 patients and complete this clinical trial in the second half of 2016. Pending positive data from this clinical trial, we plan to advance VK5211 in further clinical trials. We also plan to discuss with the U.S. Food and Drug Administration, or the FDA, potential clinical development of VK5211 in other settings, such as cancer cachexia.

Hip fractures occur in over 300,000 persons in the U.S. annually. Most hip fractures occur in the elderly, often resulting from minimal trauma, such as a fall from standing height. Unfortunately, elderly individuals are at higher risk of substantial morbidity and mortality due to these fractures as a result of higher rates of frailty and undernourishment. Furthermore, the rate of hip fracture is known to increase with age, doubling every five to six years after age 60. Fractures of the hip can lead to devastating consequences. Disability frequently results from persistent pain and limited physical mobility. Hip fractures are associated with substantial morbidity and mortality, with approximately 15%-20% of patients dying within one year of fracture. There are currently no approved therapies in the U.S. for restoration or preservation of LBM, BMD or physical function in patients who

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have suffered a hip fracture. Pharmacological interventions, including with steroids, have demonstrated limited clinical benefit or expose patients to the risk of undesirable side-effects, such as virilization in women and prostate growth in men. We believe the potential size of the worldwide hip fracture treatment market for a SARM exceeds $1.0 billion annually.

Thyroid Beta Agonists for Lipid Disorders and Adrenoleukodystrophy

Our second pipeline program is focused on the development of orally available small molecule TRß agonists. Our two lead molecules are VK2809 and VK0214. We believe selective thyroid receptor agonists have the potential to treat a variety of lipid disorders. Thyroid hormone receptors are found in several tissues throughout the body. The TRß isoform is the major receptor subtype expressed in the liver and the TRa isoform is the major subtype expressed in the heart. Selective activation of the TRß receptor in liver tissue is believed to favorably affect cholesterol and lipoprotein levels via multiple mechanisms, including increasing the expression of low-density lipoprotein receptors and increasing mitochondrial fatty acid oxidation. These characteristics in turn lead to reductions of low-density lipoprotein cholesterol, or LDL-C, plasma and liver triglycerides. We are developing VK2809 for the potential treatment of hypercholesterolemia and fatty liver disease. We are developing VK0214 for the potential treatment of X-ALD.

Hypercholesterolemia and NASH

We believe our selective TRß agonists are capable of achieving this unique lipid lowering profile without eliciting unwanted effects on the heart and thyroid hormone axis. In a Phase 1 multiple ascending dose clinical trial, patients with mild hypercholesterolemia who were treated with VK2809 at doses of 5 mg and above experienced significant placebo-adjusted LDL-C reductions from baseline, ranging from approximately 15% -41%. In addition, placebo-adjusted triglyceride levels were reduced by more than 30% at doses of 2.5 mg and above. There were no serious adverse events observed in this trial, and no differences in heart rate, heart rhythm or blood pressure were observed between VK2809 and placebo-treated patients. In addition, VK2809 has demonstrated significant reductions in liver fat content in multiple animal models of fatty liver disease, suggesting potential efficacy in the setting of NASH.

In the U.S., the number of patients with dyslipidemia was estimated to be greater than 100 million in 2013. In the U.S., 33.5% of adults, or 71.0 million people, have high LDL-C. NASH is a growing epidemic in the U.S., and is quickly becoming a leading cause of cirrhosis and liver failure. It is estimated that NASH affects 2% to 5% of Americans, or 6.0 to 15.0 million people. As a result, we believe the global market opportunity for VK2809 in hypercholesterolemia or NASH exceeds $1.0 billion.

Based on the available clinical and preclinical data, we believe VK2809 has the following important characteristics that may benefit patients with metabolic or lipid disorders:

- *Broader efficacy:* Preliminary Phase 1 data suggest VK2809 could reduce plasma LDL-C, triglyceride and atherogenic protein levels by greater amounts than existing oral therapies. Such broad and potent lipid lowering-activity may be particularly desirable for poorly-controlled patients with hypercholesterolemia or mixed dyslipidemia, or among patients with risk factors such as chronic kidney disease.

Encouraging safety profile: VK2809 has demonstrated encouraging safety to date in over 110 subjects. No drug related serious adverse events were observed. In addition, no cardiovascular abnormalities were reported, in-line with the expected high tissue and receptor selectivity for VK2809.

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Encouraging tolerability: VK2809 has been well-tolerated at and above doses that we plan to administer in future clinical trials, which we expect to be at or below 20 mg, with specific doses to be chosen based on the outcome of planned pharmacokinetic and pharmacodynamic calculations.

Novel mechanism of action: Based on its selective thyroid receptor targeting mechanism of action, we believe VK2809 has the potential to lower plasma and liver lipid levels in a manner complementary to existing agents such as statins. In particular, we expect the unique liver-targeting properties of VK2809 will impart a robust lipid lowering effect within hepatic tissue, with potential therapeutic applications in fatty liver diseases such as NASH.

Combinability: VK2809 s novel mechanism of action is expected to allow combinability with many existing therapies, leading to enhanced efficacy and potentially delaying transition to subsequent therapies.

Once-daily convenience: Clinical data suggest that VK2809 has the potential to lower plasma lipid levels in hypercholesterolemia patients as a once-daily oral therapy.

X-ALD

We are also developing TRß agonists for the treatment and potential prophylaxis of X-ALD, a rare X-linked, inherited neurological disorder characterized by a breakdown in the protective barriers surrounding brain and nerve cells. The disease, for which there is no approved treatment, is caused by mutations in a transporter of very long chain fatty acids, or VLCFA, known as the adenosine triphosphate binding cassette transporter D1, or ABCD1. As a result of the mutations, transporter function is impaired and patients are unable to efficiently metabolize VLCFA. The thyroid beta receptor is known to regulate expression of an alternative VLCFA transporter, known as ABCD2. Various preclinical models have demonstrated that increased expression of ABCD2 can lead to normalization of VLCFA metabolism. Preliminary data suggest that our molecules stimulate ABCD2 expression levels. We expect to commence *in vivo* studies in VK0214 in the fourth quarter of 2015 and to report preliminary data in 2016.

X-ALD is a rare, often fatal condition believed to occur with an incidence of approximately one in 17,000 births. X-ALD is caused by mutations in the gene encoding for ABCD1, which is located on the X chromosome. Men have one X chromosome, while women have two copies. Therefore, an inherited mutation in the ABCD1 gene is more likely to manifest in males relative to females. The ABCD1 protein plays a critical role in the transport of VLCFA into a cellular organelle called the peroxisome, where VLCFA metabolism and disposal occur. Without functional ABCD1, VLCFA accumulate in cells, including neural cells, where they can lead to membrane disruption and damage to the myelin sheath, a protective and insulating membrane that surrounds nerve cells in the brain. This damage can result in decreased motor coordination and function, visual and hearing disturbances, the loss of cognitive function, dementia, seizures, adrenal dysfunction and other complications, including death. There are currently no approved therapies for X-ALD and pharmacologic interventions have demonstrated limited clinical benefit. As a result, we believe the worldwide X-ALD market exceeds $1.0 billion.

Additional Programs

We have a pipeline with three additional programs targeting metabolic diseases and anemia. Our most advanced pipeline program is VK0612, a first-in-class, orally available Phase 2b-ready drug candidate for type 2 diabetes. Preliminary clinical data suggest VK0612 has the potential to provide substantial glucose-lowering effects, with an attractive safety and convenience profile compared with existing type 2 diabetes therapies. Our preclinical programs

are focused on identifying orally available erythropoietin receptor, or EPOR, agonists, for the potential treatment of anemia, and on the development of tissue-selective inhibitors of diacylglycerol acyltransferase-1, or DGAT-1, for the potential treatment of obesity and dyslipidemia.

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Our Product Pipeline

The following table highlights our product pipeline:

Key: SARM, selective androgen receptor modulator; TRß, thyroid receptor beta; NASH, nonalcoholic steatohepatitis.

Our Strategy

We intend to become a leading biopharmaceutical company focused on the development of novel, first-in-class or best-in-class therapies for metabolic and endocrine disorders. The key elements of our strategy include:

Advance the development of VK5211 for hip fracture and other muscle wasting disorders. We have commenced enrollment for a Phase 2 proof-of-concept clinical trial in patients recovering from non-elective hip fracture surgery, and we expect to enroll a total of 120 patients and complete this clinical trial in the second half of 2016. Pending positive data from this clinical trial, we plan to advance VK5211 in further clinical trials.

Advance the development of VK2809 for hypercholesterolemia and fatty liver disease. We plan to commence a Phase 2 clinical trial in approximately 100 patients with hypercholesterolemia and fatty liver disease in the fourth quarter of 2015. We expect to complete this clinical trial in the second half of 2016.

Advance the development of VK0214 for X-ALD. We plan to pursue the development of VK0214 in an animal model of X-ALD in the fourth quarter of 2015 and complete the model study in 2016.

Advance the development of VK0612 for type 2 diabetes. Pending additional funding, we intend to commence clinical development of VK0612 to evaluate once-daily doses of VK0612 in patients with poorly-controlled type 2 diabetes.

Advance the development of our preclinical programs. We currently have two additional preclinical programs in development. Pending additional funding, we also plan to further advance our EPOR agonist and DGAT-1 inhibitor programs.

Evaluate strategic partnership and collaboration opportunities. We plan to selectively evaluate partnership and collaboration opportunities throughout the duration of our development programs. In addition, we may opportunistically pursue in-licensing opportunities.

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Risks Related to Our Business

Our business is subject to numerous risks and uncertainties, including those highlighted in the section of this prospectus entitled Risk Factors, which you should read carefully before making a decision to invest in our common stock. Some of these risks include:

- We are a clinical-stage company, have a very limited operating history and are expected to incur significant operating losses during the early stage of our corporate development;
- We are substantially dependent on technologies we license from Ligand, and if we lose the right to license such technologies or the Master License Agreement with Ligand is terminated for any reason, our ability to develop existing and new drug candidates would be harmed;
- We are dependent on the success of our current drug candidates and we cannot be certain that any of them will receive regulatory approval or be commercialized;
- If development of our drug candidates does not produce favorable results, we and our collaborators, if any, may be unable to commercialize these products;
- Our efforts to discover drug candidates beyond our current drug candidates may not succeed, and any drug candidates we recommend for clinical development may not actually begin clinical trials;
- We may need to raise additional capital after completion of this offering, which may be unavailable to us and, even if we raise capital, it may cause dilution or place significant restrictions on our ability to operate;
- We rely completely on third parties to manufacture our preclinical and clinical drug supplies, and our business, financial condition and results of operations could be harmed if those third parties fail to provide us with sufficient quantities of drug product, or fail to do so at acceptable quality levels or prices;
- The commercial success of our drug candidates depends upon their market acceptance among physicians, patients, healthcare payors and the medical community;
- We may not be successful in obtaining or maintaining necessary rights to our drug candidates through acquisitions and in-licenses;
- If we fail to comply with our obligations in the agreements under which we license intellectual property and other rights from third parties or otherwise experience disruptions to our business relationships with

our licensors, we could lose license rights that are important to our business; and

If we fail to retain current members of our senior management and scientific personnel, or to attract and keep additional key personnel, we may be unable to successfully develop or commercialize our drug candidates.

Agreements with Ligand

On May 21, 2014, we entered into a Master License Agreement with Ligand, as amended on each of September 6, 2014 and April 8, 2015, or the Master License Agreement, pursuant to which, among other things, Ligand granted us an exclusive worldwide license to VK5211, VK2809, VK0214 and VK0612, as well as two

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preclinical programs. Under the terms of the Master License Agreement, we issued to Ligand, at the closing of the initial public offering of shares of our common stock, 3,655,964 shares of our common stock having an estimated aggregate value of $29.2 million, and agreed to pay to Ligand certain development and commercial milestone payments of up to $1.54 billion, as well as single-digit royalties on future worldwide net product sales.

In connection with entering into the Master License Agreement, we also entered into a Loan and Security Agreement with Ligand, dated May 21, 2014, as amended on April 8, 2015, or the Loan and Security Agreement, pursuant to which, among other things, Ligand agreed to provide us with loans in the aggregate amount of up to $2.5 million. The loans are and will be evidenced by a Secured Convertible Promissory Note, or the Ligand Note. Upon the earlier of (1) the consummation of a bona fide capital financing transaction or series of financing transactions with one or more financial non-strategic investors with aggregate net proceeds to us of at least $20.0 million and pursuant to which we issue shares of our equity securities, or a Qualified Private Financing, (2) the consummation of a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended, on Form S-1 or Form S-3, or any successor forms, with an initial aggregate offering size of at least $20.0 million, or a Qualified Follow-on Public Offering, and (3) May 4, 2016, Ligand will have the option to convert the amounts outstanding under the Ligand Note into shares of our common stock.

Further details regarding the Master License Agreement, the Loan and Security Agreement, the Note and certain other agreements we entered into with Ligand in connection with the Master License Agreement are discussed in the section of this prospectus entitled Business Agreements with Ligand .

Corporate Information

We were incorporated under the laws of the State of Delaware on September 24, 2012. Our principal executive offices are located at 12340 El Camino Real, Suite 250, San Diego, CA 92130, and our telephone number is (858) 704-4660. Our website address is *www.vikingtherapeutics.com.* We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Emerging Growth Company Status

We qualify as an emerging growth company, as that term is defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For as long as we qualify as an emerging growth company, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that do not qualify as emerging growth companies, including, without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002, as amended, reduced disclosure obligations relating to executive compensation and exemptions from the requirements of holding advisory say-on-pay, say-when-on-pay and golden parachute executive compensation votes.

Under the JOBS Act, we will remain an emerging growth company until the earliest of:

- the last day of the fiscal year during which we have total annual gross revenues of $1.0 billion or more;

the last day of the fiscal year following the fifth anniversary of the completion of our initial public offering, or December 31, 2020;

the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt; and

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the date on which we are deemed to be a large accelerated filer under the Securities Exchange Act of 1934, or the Exchange Act (i.e., the first day of the fiscal year after we have (1) more than $700.0 million in outstanding common equity held by our non-affiliates, measured each year on the last day of our second fiscal quarter, and (2) been public for at least 12 months).

We have elected to take advantage of certain of the reduced disclosure obligations regarding executive compensation in this prospectus and may elect to take advantage of other reduced reporting requirements in future filings with the Securities and Exchange Commission, or the SEC. As a result, the information that we provide to our stockholders may be different than the information you receive from other public reporting companies.

The JOBS Act also provides that an emerging growth company can utilize the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. However, we are choosing to opt out of such extended transition period 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 companies that are not emerging growth companies. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

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THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Overallotment option	shares
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $ million, or approximately $ million if the underwriters exercise their option to purchase additional shares of our common stock in this offering in full, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering to fund clinical trials for VK5211, VK2809 and VK0214 and the research and development of our other clinical and preclinical drug candidates and for other working capital and general corporate purposes. See the section of this prospectus entitled Use of Proceeds on page 54 for a more complete description of the intended use of the net proceeds from this offering.
Risk Factors	You should read the section of this prospectus entitled Risk Factors beginning on page 13 for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Dividend Policy	Currently, we do not anticipate paying cash dividends.
Nasdaq Capital Market Symbol	VKTX

The number of shares of common stock that will be outstanding after this offering is based on 9,783,312 shares of common stock outstanding as of September 30, 2015, and excludes the following:

- 410,144 shares of common stock issuable upon the exercise of options outstanding as of September 30, 2015 with a weighted-average exercise price of $8.41 per share;

84,000 shares of common stock reserved for future issuance in connection with service-based restricted stock units outstanding as of September 30, 2015 with a weighted-average grant date fair value of $8.22 per share;

602,379 shares of common stock reserved as of September 30, 2015 for future issuance under our 2014 Equity Incentive Plan, which contains provisions that may increase its share reserve each year, as more fully described in the section of this prospectus entitled Executive Compensation 2014 Equity Incentive Plan ;

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458,049 shares of common stock reserved as of September 30, 2015 for future issuance under our 2014 Employee Stock Purchase Plan, which contains provisions that may increase its share reserve each year, as more fully described in the section of this prospectus entitled Executive Compensation 2014 Employee Stock Purchase Plan ;

82,500 shares of common stock issuable upon the exercise of an outstanding warrant as of September 30, 2015, with an exercise price of $10.00 per share; and

663,090 shares of our common stock issuable upon conversion of the secured convertible promissory note previously issued by us to Ligand, based on $2,652,361 of principal and interest outstanding under the note as of September 30, 2015.

Unless indicated otherwise, all information in this prospectus assumes:

no exercise of options or the warrant described above after September 30, 2015;

that the secured convertible promissory note previously issued by us to Ligand is not converted into any shares of our common stock; and

no exercise of the underwriters option to purchase additional shares of our common stock in this offering.

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Summary Financial Data

The following table sets forth our summary financial data as of the dates and for the periods indicated. We have derived the summary statement of operations data for the years ended December 31, 2013 and 2014 from our audited financial statements included elsewhere in this prospectus. The summary statement of operations data for the nine months ended September 30, 2014 and 2015 and the historical balance sheet data as of September 30, 2015 have been derived from our unaudited interim financial statements, which are included elsewhere in this prospectus. The unaudited interim financial statements have been prepared on the same basis as the audited financial statements and, in the opinion of management, reflect all adjustments, consisting primarily of normal recurring adjustments, necessary to fairly present our financial position as of September 30, 2015 and results of operations for the nine months ended September 30, 2014 and 2015. The historical results presented below are not necessarily indicative of the results to be expected for any future period and our interim results are not necessarily indicative of the results that may be expected for a full year. The following summaries of our financial data for the periods presented should be read in conjunction with the sections of this prospectus entitled Risk Factors, Selected Financial Data, Capitalization, Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and the related notes included elsewhere in this prospectus.

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014	2015
			(Unaudited)	(Unaudited)
Revenues	$	$	$	$
Operating expenses:				
Research and development	11,613	22,223,073	22,080,286	3,747,428
General and administrative	89,463	1,244,910	1,034,132	3,628,747
Total operating expenses	101,076	23,467,983	23,114,418	7,376,175
Loss from operations	(101,076)	(23,467,983)	(23,114,418)	(7,376,175)
Other income (expense):				
Change in fair value of accrued license fees		1,821,713	(264,112)	(9,381,848)
Change in fair value of debt conversion feature liability	(20,622)	390,763	405,782	(826,637)
Amortization of debt discount	(18,392)	(557,961)	(263,651)	(652,986)
Interest expense, net	(6,157)	(70,715)	(37,131)	(75,379)
Total other income (expense)	(45,171)	1,583,800	(159,112)	(10,936,850)
Net loss	(146,247)	(21,884,183)	(23,273,530)	(18,313,025)
Other comprehensive loss, net of tax:				
Unrealized loss on securities				(4,848)
Comprehensive loss	$ (146,247)	$ (21,884,183)	$ (23,273,530)	$ (18,317,873)
Basic and diluted net loss per share	$ (0.07)	$ (5.23)	$ (5.84)	$ (2.69)

Weighted-average shares used to compute basic and diluted net loss per share	2,043,295	4,187,415	3,982,147	6,802,169

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	As of September 30, 2015	
	Actual	As Adjusted(1)(2)
	(Unaudited)	
Balance Sheet Data		
Cash	2,140,115	
Working capital (deficit)	13,209,700	
Total assets	19,012,251	
Accrued license fees	-	
Accrued interest	152,361	
Convertible notes payable, current	1,911,024	
Convertible notes payable, non-current	-	
Debt conversion feature liability, current	2,154,062	
Debt conversion feature liability, non-current	-	
Accumulated deficit	(40,454,482)	
Total stockholders equity (deficit)	13,270,551	

(1) Gives effect to the sale and issuance by us of shares of common stock at an assumed public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

(2) Each $1.00 increase or decrease in the assumed public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, would increase or decrease the as adjusted amount of cash and total stockholders equity by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, before making a decision to invest in our common stock. The risks and uncertainties described below may not be the only ones we face. If any of the risks actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that event, the trading price of our common stock could decline, and you could lose part or all of your investment.

Risks Relating to Our Business

We are a clinical-stage company, have a very limited operating history and are expected to incur significant operating losses during the early stage of our corporate development.

We are a clinical-stage company. We were incorporated in, and have only been conducting operations since, September 2012. Our operations to date have been limited to raising capital, building infrastructure, obtaining the worldwide rights to certain technology from Ligand Pharmaceuticals Incorporated, or Ligand, and planning, preparing and conducting preclinical studies and clinical trials of our drug candidates, including VK5211 and VK0612, which are currently in Phase 2 clinical development, VK2809, which has completed Phase 1 clinical development and VK0214 and the EPOR and DGAT-1 programs, which are each currently in preclinical development. As a result, we have no meaningful historical operations upon which to evaluate our business and prospects and have not yet demonstrated an ability to obtain marketing approval for any of our drug candidates or successfully overcome the risks and uncertainties frequently encountered by companies in the biopharmaceutical industry. We also have not generated any revenue to date, and we continue to incur significant research and development and other expenses. Our net loss for the nine months ended September 30, 2015 and 2014 was $18,313,025 and $23,273,530, respectively. As of September 30, 2015, we had an accumulated deficit of $40,454,482. For the foreseeable future, we expect to continue to incur losses, which will increase significantly from historical levels as we expand our drug development activities, seek regulatory approvals for our drug candidates and begin to commercialize them if they are approved by the U.S. Food and Drug Administration, or the FDA, the European Medicines Agency, or EMA, or comparable foreign authorities. Even if we succeed in developing and commercializing one or more drug candidates, we may never become profitable. If we fail to achieve or maintain profitability, it would adversely affect the value of our common stock.

We are substantially dependent on technologies we licensed from Ligand, and if we lose the license to such technologies or the Master License Agreement is terminated for any reason, our ability to develop existing and new drug candidates would be harmed, and our business, financial condition and results of operations would be materially and adversely affected.

Our business is substantially dependent upon technology licensed from Ligand. Pursuant to the Master License Agreement, we have been granted exclusive worldwide rights to VK5211, VK2809, VK0214, VK0612 and preclinical programs for anemia and lipid disorders. SARMS, such as our lead program VK5211, are key compounds used by us in the development and commercialization of our drug candidates. All of the intellectual property related to our drug candidates is currently owned by Ligand, and we have the rights to use such intellectual property pursuant to the Master License Agreement. Therefore, our ability to develop and commercialize our drug candidates depends entirely on the effectiveness and continuation of the Master License Agreement. If we lose the right to license any of these key compounds, our ability to develop existing and new drug candidates would be harmed.

Ligand has the right to terminate the Master License Agreement under certain circumstances, including, but not limited to: (1) in the event of our insolvency or bankruptcy, (2) if we do not pay an undisputed amount owing under the Master License Agreement when due and fail to cure such default within a specified period of time, or (3) if we default on certain of our material obligations and fail to cure the default within a specified period of time.

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We are dependent on the success of one or more of our current drug candidates and we cannot be certain that any of them will receive regulatory approval or be commercialized.

We have spent significant time, money and effort on the licensing and development of our core metabolic and endocrine disease assets, VK5211, VK2809, VK0214, VK0612 and our earlier-stage assets, the EPOR and DGAT-1 programs. To date, no pivotal clinical trials designed to provide clinically and statistically significant proof of efficacy, or to provide sufficient evidence of safety to justify approval, have been completed with any of our drug candidates. All of our drug candidates will require additional development, including clinical trials as well as further preclinical studies to evaluate their toxicology, carcinogenicity and pharmacokinetics and optimize their formulation, and regulatory clearances before they can be commercialized. Positive results obtained during early development do not necessarily mean later development will succeed or that regulatory clearances will be obtained. Our drug development efforts may not lead to commercial drugs, either because our drug candidates fail to be safe and effective or because we have inadequate financial or other resources to advance our drug candidates through the clinical development and approval processes. If any of our drug candidates fail to demonstrate safety or efficacy at any time or during any phase of development, we would experience potentially significant delays in, or be required to abandon, development of the drug candidate.

We do not anticipate that any of our current drug candidates will be eligible to receive regulatory approval from the FDA, EMA or comparable foreign authorities and begin commercialization for a number of years, if ever. Even if we ultimately receive regulatory approval for any of these drug candidates, we or our potential future partners, if any, may be unable to commercialize them successfully for a variety of reasons. These include, for example, the availability of alternative treatments, lack of cost-effectiveness, the cost of manufacturing the product on a commercial scale and competition with other drugs. The success of our drug candidates may also be limited by the prevalence and severity of any adverse side effects. If we fail to commercialize one or more of our current drug candidates, we may be unable to generate sufficient revenues to attain or maintain profitability, and our financial condition and stock price may decline.

If development of our drug candidates does not produce favorable results, we and our collaborators, if any, may be unable to commercialize these products.

To receive regulatory approval for the commercialization of our core metabolic and endocrine disease assets, VK5211, VK2809, VK0214, VK0612 and our earlier-stage assets, the EPOR and DGAT-1 programs, or any other drug candidates that we may develop, adequate and well-controlled clinical trials must be conducted to demonstrate safety and efficacy in humans to the satisfaction of the FDA, EMA and comparable foreign authorities. In order to support marketing approval, these agencies typically require successful results in one or more Phase 3 clinical trials, which our current drug candidates have not yet reached and may never reach. The development process is expensive, can take many years and has an uncertain outcome. Failure can occur at any stage of the process. We may experience numerous unforeseen events during, or as a result of, the development process that could delay or prevent commercialization of our current or future drug candidates, including the following:

- clinical trials may produce negative or inconclusive results;

- preclinical studies conducted with drug candidates during clinical development to, among other things, evaluate their toxicology, carcinogenicity and pharmacokinetics and optimize their formulation may produce unfavorable results;

patient recruitment and enrollment in clinical trials may be slower than we anticipate;

costs of development may be greater than we anticipate;

our drug candidates may cause undesirable side effects that delay or preclude regulatory approval or limit their commercial use or market acceptance, if approved;

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- collaborators who may be responsible for the development of our drug candidates may not devote sufficient resources to these clinical trials or other preclinical studies of these candidates or conduct them in a timely manner; or

- we may face delays in obtaining regulatory approvals to commence one or more clinical trials.

Success in early development does not mean that later development will be successful because, for example, drug candidates in later-stage clinical trials may fail to demonstrate sufficient safety and efficacy despite having progressed through initial clinical trials.

We licensed all of the intellectual property related to our drug candidates from Ligand pursuant to the Master License Agreement. We recently completed a Phase 1 clinical trial and initiated a Phase 2 clinical trial for VK5211. All other clinical trials, preclinical studies and other analyses performed to date with respect to our drug candidates have been conducted by Ligand. Therefore, as a company, we have limited experience in conducting clinical trials for our drug candidates. Since our experience with our drug candidates is limited, we will need to train our existing personnel and hire additional personnel in order to successfully administer and manage our clinical trials and other studies as planned, which may result in delays in completing such planned clinical trials and preclinical studies. Moreover, to date our drug candidates have been tested in less than the number of patients that will likely need to be studied to obtain regulatory approval. The data collected from clinical trials with larger patient populations may not demonstrate sufficient safety and efficacy to support regulatory approval of these drug candidates.

We currently do not have strategic collaborations in place for clinical development of any of our current drug candidates. Therefore, in the future, we or any potential future collaborative partner will be responsible for establishing the targeted endpoints and goals for development of our drug candidates. These targeted endpoints and goals may be inadequate to demonstrate the safety and efficacy levels required for regulatory approvals. Even if we believe data collected during the development of our drug candidates are promising, such data may not be sufficient to support marketing approval by the FDA, EMA or comparable foreign authorities. Further, data generated during development can be interpreted in different ways, and the FDA, EMA or comparable foreign authorities may interpret such data in different ways than us or our collaborators. Our failure to adequately demonstrate the safety and efficacy of our drug candidates would prevent our receipt of regulatory approval, and ultimately the potential commercialization of these drug candidates.

Since we do not currently possess the resources necessary to independently develop and commercialize our drug candidates, including our core metabolic and endocrine disease assets, VK5211, VK2809, VK0214, VK0612 and our earlier-stage assets, the EPOR and DGAT-1 programs, or any other drug candidates that we may develop, we may seek to enter into collaborative agreements to assist in the development and potential future commercialization of some or all of these assets as a component of our strategic plan. However, our discussions with potential collaborators may not lead to the establishment of collaborations on acceptable terms, if at all, or it may take longer than expected to establish new collaborations, leading to development and potential commercialization delays, which would adversely affect our business, financial condition and results of operations.

We expect to continue to incur significant research and development expenses, which may make it difficult for us to attain profitability.

We expect to expend substantial funds in research and development, including preclinical studies and clinical trials of our drug candidates, and to manufacture and market any drug candidates in the event they are approved for commercial sale. We also may need additional funding to develop or acquire complementary companies, technologies and assets, as well as for working capital requirements and other operating and general corporate purposes. Moreover,

our planned increases in staffing will dramatically increase our costs in the near and long-term.

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Because the successful development of our drug candidates is uncertain, we are unable to precisely estimate the actual funds we will require to develop and potentially commercialize them. In addition, we may not be able to generate sufficient revenue, even if we are able to commercialize any of our drug candidates, to become profitable.

Our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern.

We are a clinical-stage company, and the development and commercialization of our drug candidates is uncertain and expected to require substantial expenditures. We have not yet generated any revenues from our operations to fund our activities, and are therefore dependent upon external sources for financing our operations. The audit report issued by our independent registered public accounting firm for our financial statements for the fiscal year ended December 31, 2013 states that our independent registered public accounting firm has expressed substantial doubt in our ability to continue as a going concern. In addition, the audit report issued by our independent registered public accounting firm for our financial statements for the fiscal year ended December 31, 2014 states that our independent registered public accounting firm has expressed substantial doubt in our ability to continue as a going concern due to the risk that we may not have sufficient cash and liquid assets at December 31, 2014 to cover our operating and capital requirements for the next 12 months; and if in that case sufficient cash cannot be obtained, we would have to substantially alter, or possibly even discontinue, operations. Prior to the IPO, we did not have sufficient capital to fund our planned operations without additional financing. However, as of September 30, 2015, based upon our current operating plan, and the proceeds received from the IPO in May 2015, we believe we have sufficient cash to meet our projected operating requirements for at least the next 12 months.

Given our lack of current cash flow, we may need to raise additional capital after completion of this offering, which may be unavailable to us or, even if consummated, may cause dilution or place significant restrictions on our ability to operate our business.

Since we will be unable to generate sufficient, if any, cash flow to fund our operations for the foreseeable future, we may need to seek additional equity or debt financing to provide the capital required to maintain or expand our operations. As of September 30, 2015, we had cash and cash equivalents and investments totaling $17,489,622.

There can be no assurance that we will be able to raise sufficient additional capital, if needed, on acceptable terms, or at all. If such additional financing is not available on satisfactory terms, or is not available in sufficient amounts, we may be required to delay, limit or eliminate the development of business opportunities and our ability to achieve our business objectives, our competitiveness, and our business, financial condition and results of operations may be materially adversely affected. In addition, we may be required to grant rights to develop and market drug candidates that we would otherwise prefer to develop and market ourselves. Our inability to fund our business could lead to the loss of your investment.

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

- the scope, rate of progress, results and cost of our clinical trials, preclinical studies and other related activities;

- the timing of, and the costs involved in, obtaining regulatory approvals for any of our current or future drug candidates;

the number and characteristics of the drug candidates we seek to develop or commercialize;

the cost of manufacturing clinical supplies, and establishing commercial supplies, of our drug candidates;

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- the cost of commercialization activities if any of our current or future drug candidates are approved for sale, including marketing, sales and distribution costs;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such arrangements;
- the amount of revenue, if any, received from commercial sales of our drug candidates, should any of our drug candidates receive marketing approval; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing possible patent claims, including litigation costs and the outcome of any such litigation.

If we raise additional capital by issuing equity securities, the percentage ownership of our existing stockholders may be reduced, and accordingly these stockholders may experience substantial dilution. We may also issue equity securities that provide for rights, preferences and privileges senior to those of our common stock. Given our need for cash and that equity issuances are the most common type of fundraising for companies like ours, the risk of dilution is particularly significant for stockholders of our company.

Our drug candidates may cause undesirable side effects that could delay or prevent their regulatory approval or commercialization or have other significant adverse implications on our business, financial condition and results of operations.

Undesirable side effects observed in clinical trials or in supportive preclinical studies with our drug candidates could interrupt, delay or halt their development and could result in the denial of regulatory approval by the FDA, EMA or comparable foreign authorities for any or all targeted indications or adversely affect the marketability of any such drug candidates that receive regulatory approval. In turn, this could eliminate or limit our ability to commercialize our drug candidates.

Our drug candidates may exhibit adverse effects in preclinical toxicology studies and adverse interactions with other drugs. There are also risks associated with additional requirements the FDA, EMA or comparable foreign authorities may impose for marketing approval with regard to a particular disease.

Our drug candidates may require a risk management program that could include patient and healthcare provider education, usage guidelines, appropriate promotional activities, a post-marketing observational study, and ongoing safety and reporting mechanisms, among other requirements. Prescribing could be limited to physician specialists or physicians trained in the use of the drug, or could be limited to a more restricted patient population. Any risk management program required for approval of our drug candidates could potentially have an adverse effect on our business, financial condition and results of operations.

Undesirable side effects involving our drug candidates may have other significant adverse implications on our business, financial condition and results of operations. For example:

- we may be unable to obtain additional financing on acceptable terms, if at all;
- our collaborators may terminate any development agreements covering these drug candidates;
- if any development agreements are terminated, we may determine not to further develop the affected drug candidates due to resource constraints and may not be able to establish additional collaborations for their further development on acceptable terms, if at all;

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if we were to later continue the development of these drug candidates and receive regulatory approval, earlier findings may significantly limit their marketability and thus significantly lower our potential future revenues from their commercialization;

we may be subject to product liability or stockholder litigation; and

we may be unable to attract and retain key employees.

In addition, if any of our drug candidates receive marketing approval and we or others later identify undesirable side effects caused by the product:

regulatory authorities may withdraw their approval of the product, or we or our partners may decide to cease marketing and sale of the product voluntarily;

we may be required to change the way the product is administered, conduct additional clinical trials or preclinical studies regarding the product, change the labeling of the product, or change the product s manufacturing facilities; and

our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product and could substantially increase the costs and expenses of commercializing the product, which in turn could delay or prevent us from generating significant revenues from the sale of the product.

Our efforts to discover drug candidates beyond our current drug candidates may not succeed, and any drug candidates we recommend for clinical development may not actually begin clinical trials.

We intend to use our technology, including our licensed technology, knowledge and expertise to develop novel drugs to address some of the world s most widespread and costly chronic diseases. We intend to expand our existing pipeline of core assets by advancing drug compounds from current ongoing discovery programs into clinical development. However, the process of researching and discovering drug compounds is expensive, time-consuming and unpredictable. Data from our current preclinical programs may not support the clinical development of our lead compounds or other compounds from these programs, and we may not identify any additional drug compounds suitable for recommendation for clinical development. Moreover, any drug compounds we recommend for clinical development may not demonstrate, through preclinical studies, indications of safety and potential efficacy that would support advancement into clinical trials. Such findings would potentially impede our ability to maintain or expand our clinical development pipeline. Our ability to identify new drug compounds and advance them into clinical development also depends upon our ability to fund our research and development operations, and we cannot be certain that additional funding will be available on acceptable terms, or at all.

Delays in the commencement or completion of clinical trials could result in increased costs to us and delay our ability to establish strategic collaborations.

Delays in the commencement or completion of clinical trials could significantly impact our drug development costs. We do not know whether planned clinical trials will begin on time or be completed on schedule, if at all. The commencement of clinical trials can be delayed for a variety of reasons, including, but not limited to, delays related to:

- obtaining regulatory approval to commence one or more clinical trials;

- reaching agreement on acceptable terms with prospective third-party contract research organizations, or CROs, and clinical trial sites;

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manufacturing sufficient quantities of a drug candidate or other materials necessary to conduct clinical trials;

obtaining institutional review board approval to conduct one or more clinical trials at a prospective site;

recruiting and enrolling patients to participate in one or more clinical trials; and

the failure of our collaborators to adequately resource our drug candidates due to their focus on other programs or as a result of general market conditions.

In addition, once a clinical trial has begun, it may be suspended or terminated by us, our collaborators, the institutional review boards or data safety monitoring boards charged with overseeing our clinical trials, the FDA, EMA or comparable foreign authorities due to a number of factors, including:

failure to conduct the clinical trial in accordance with regulatory requirements or clinical protocols;

inspection of the clinical trial operations or clinical trial site by the FDA, EMA or comparable foreign authorities resulting in the imposition of a clinical hold;

unforeseen safety issues; or

lack of adequate funding to continue the clinical trial.

If we experience delays in the completion or termination of any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to commence product sales and generate product revenues from any of our product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs and slow down our product candidate development and approval process. Delays in completing our clinical trials could also allow our competitors to obtain marketing approval before we do or shorten the patent protection period during which we may have the exclusive right to commercialize our product candidates. 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 clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

Results of earlier clinical trials may not be predictive of the results of later-stage clinical trials.

The results of preclinical studies and early clinical trials of product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy results despite having progressed through preclinical studies and initial clinical trials. Many companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to adverse safety profiles or lack of efficacy, notwithstanding promising results in earlier studies. Similarly, our future clinical trial results may not be successful for these or other reasons.

This drug candidate development risk is heightened by any changes in the planned clinical trials compared to the completed clinical trials. As product candidates are developed through preclinical to early to late stage clinical trials towards approval and commercialization, it is customary that various aspects of the development program, such as manufacturing and methods of administration, are altered along the way in an effort to optimize processes and results. While these types of changes are common and are intended to optimize the product candidates for late stage clinical trials, approval and commercialization, such changes carry the risk that they will not achieve these intended objectives.

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Any of these changes could make the results of our planned clinical trials or other future clinical trials we may initiate less predictable and could cause our product candidates to perform differently, including causing toxicities, which could delay completion of our clinical trials, delay approval of our product candidates, and/or jeopardize our ability to commence product sales and generate revenues.

If we experience delays in the enrollment of patients in our clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or other regulatory authorities. Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors, including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials and clinicians and patients perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating.

If we fail to enroll and maintain the number of patients for which the clinical trial was designed, the statistical power of that clinical trial may be reduced, which would make it harder to demonstrate that the product candidate being tested in such clinical trial is safe and effective. Additionally, enrollment delays in our clinical trials may result in increased development costs for our product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing. Our inability to enroll a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

We intend to rely on third parties to conduct our preclinical studies and clinical trials and perform other tasks for us. If these third parties do not successfully carry out their contractual duties, meet expected deadlines, or comply with regulatory requirements, we may not be able to obtain regulatory approval for or commercialize our drug candidates and our business, financial condition and results of operations could be substantially harmed.

Ligand, the licensor of our development programs, has relied upon and plans to continue to rely upon third-party CROs, medical institutions, clinical investigators and contract laboratories to monitor and manage data for our licensed ongoing preclinical and clinical programs. We have relied and expect to continue to rely on these parties for execution of our preclinical studies and clinical trials, and we control only certain aspects of their activities. Nevertheless, we maintain responsibility for ensuring that each of our clinical trials and preclinical studies is conducted in accordance with the applicable protocol, legal, regulatory, and scientific standards and our reliance on these third parties does not relieve us of our regulatory responsibilities. We and our CROs and other vendors are required to comply with current requirements on good manufacturing practices, or cGMP, good clinical practices, or GCP, and good laboratory practice, or GLP, which are a collection of laws and regulations enforced by the FDA, EMA or comparable foreign authorities for all of our drug candidates in clinical development. Regulatory authorities enforce these regulations through periodic inspections of preclinical study and clinical trial sponsors, principal investigators, preclinical study and clinical trial sites, and other contractors. If we or any of our CROs or vendors fails to comply with applicable regulations, the data generated in our preclinical studies and clinical trials may be deemed unreliable and the FDA, EMA or comparable foreign authorities may require us to perform additional preclinical studies and clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP regulations. In addition, our clinical trials must be conducted with products produced consistent with cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay

the development and regulatory approval processes.

If any of our relationships with these third-party CROs, medical institutions, clinical investigators or contract laboratories terminate, we may not be able to enter into arrangements with alternative CROs on commercially reasonable terms, or at all. In addition, our CROs are not our employees, and except for remedies available to us

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under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our ongoing preclinical and clinical programs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they 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 protocols, regulatory requirements, or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our drug candidates. CROs may also generate higher costs than anticipated. As a result, our business, financial condition and results of operations and the commercial prospects for our drug candidates could be materially and adversely affected, our costs could increase, and our ability to generate revenue could be delayed.

Switching or adding additional CROs, medical institutions, clinical investigators or contract laboratories involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work replacing a previous CRO. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse effect on our business, financial condition or results of operations.

Our drug candidates are subject to extensive regulation under the FDA, EMA or comparable foreign authorities, which can be costly and time consuming, cause unanticipated delays or prevent the receipt of the required approvals to commercialize our drug candidates.

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, export, marketing and distribution of our drug candidates are subject to extensive regulation by the FDA and other U.S. regulatory agencies, EMA or comparable authorities in foreign markets. In the U.S., neither we nor our collaborators are permitted to market our drug candidates until we or our collaborators receive approval of a new drug application, or an NDA, from the FDA or receive similar approvals abroad. The process of obtaining these approvals is expensive, often takes many years, and can vary substantially based upon the type, complexity and novelty of the drug candidates involved. Approval policies or regulations may change and may be influenced by the results of other similar or competitive products, making it more difficult for us to achieve such approval in a timely manner or at all. For example, the FDA has released draft guidance regarding clinical trials for drug candidates treating diabetes that may result in more stringent requirements for the clinical trials and regulatory approval of such drug candidates. This and any future guidance that may result from recent FDA advisory panel discussions may make it more expensive to develop and commercialize such drug candidates. Such increased expense could make it more difficult to obtain favorable terms in the collaborative arrangements we require to maximize the value of our programs seeking to develop new drug candidates for diabetes. In addition, as a company, we have not previously filed NDAs with the FDA or filed similar applications with other foreign regulatory agencies. This lack of experience may impede our ability to obtain FDA or other foreign regulatory agency approval in a timely manner, if at all, for our drug candidates for which development and commercialization is our responsibility.

Despite the time and expense invested, regulatory approval is never guaranteed. The FDA, EMA or comparable foreign authorities can delay, limit or deny approval of a drug candidate for many reasons, including:

- a drug candidate may not be deemed safe or effective;
- agency officials of the FDA, EMA or comparable foreign authorities may not find the data from non-clinical or preclinical studies and clinical trials generated during development to be sufficient;

the FDA, EMA or comparable foreign authorities may not approve our third-party manufacturers processes or facilities; or

the FDA, EMA or a comparable foreign authority may change its approval policies or adopt new regulations.

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Our inability to obtain these approvals would prevent us from commercializing our drug candidates.

Even if our drug candidates receive regulatory approval in the U.S., we may never receive approval or commercialize our products outside of the U.S.

In order to market any products outside of the U.S., we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the U.S. as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay seeking or obtaining such approval would impair our ability to develop foreign markets for our drug candidates.

Even if any of our drug candidates receive regulatory approval, our drug candidates may still face future development and regulatory difficulties.

If any of our drug candidates receive regulatory approval, the FDA, EMA or comparable foreign authorities may still impose significant restrictions on the indicated uses or marketing of the drug candidates or impose ongoing requirements for potentially costly post-approval studies and trials. In addition, regulatory agencies subject a product, its manufacturer and the manufacturer s facilities to continual review and periodic inspections. If a regulatory agency discovers previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, our collaborators or us, including requiring withdrawal of the product from the market. Our drug candidates will also be subject to ongoing FDA, EMA or comparable foreign authorities requirements for the labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information on the drug. If our drug candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or other notices of possible violations;
- impose civil or criminal penalties or fines or seek disgorgement of revenue or profits;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications filed by us or our collaborators;
- withdraw any regulatory approvals;

impose restrictions on operations, including costly new manufacturing requirements, or shut down our manufacturing operations; or

seize or detain products or require a product recall.

The FDA, EMA and comparable foreign authorities actively enforce the laws and regulations prohibiting the promotion of off-label uses.

The FDA, EMA and comparable foreign authorities strictly regulate the promotional claims that may be made about prescription products, such as our drug candidates, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA, EMA or comparable foreign authorities as reflected in the

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product s approved labeling. If we receive marketing approval for our drug candidates for our proposed indications, physicians may nevertheless use our products for their patients in a manner that is inconsistent with the approved label, if the physicians personally believe in their professional medical judgment that our products could be used in such manner. However, if we are found to have promoted our products for any off-label uses, the federal government could levy civil, criminal or administrative penalties, and seek fines against us. Such enforcement has become more common in the industry. The FDA, EMA or comparable foreign authorities could also request that we enter into a consent decree or a corporate integrity agreement, or seek a permanent injunction against us under which specified promotional conduct is monitored, changed or curtailed. If we cannot successfully manage the promotion of our drug candidates, if approved, we could become subject to significant liability, which would materially adversely affect our business, financial condition and results of operations.

If our competitors have drug candidates that are approved faster, marketed more effectively or demonstrated to be more effective than ours, our commercial opportunity may be reduced or eliminated.

The biopharmaceutical industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including commercial biopharmaceutical enterprises, academic institutions, government agencies and private and public research institutions. Any drug candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical studies, clinical trials, regulatory approvals and marketing approved products than we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Our competitors may succeed in developing technologies and therapies that are more effective, better tolerated or less costly than any which we are developing, or that would render our drug candidates obsolete and noncompetitive. Even if we obtain regulatory approval of any of our drug candidates, our competitors may succeed in obtaining regulatory approvals for their products earlier than we do. We will also face competition from these third parties in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, and in acquiring and in-licensing technologies and products complementary to our programs or advantageous to our business.

The key competitive factors affecting the success of each of our drug candidates, if approved, are likely to be its efficacy, safety, tolerability, frequency and route of administration, convenience and price, the level of branded and generic competition and the availability of coverage and reimbursement from government and other third-party payors.

VK5211

In the U.S., there are currently no marketed therapies for the maintenance or improvement of lean body mass, or LBM, bone mineral density, or BMD, and function in patients recovering from non-elective hip fracture surgery. However, VK5211, if approved, will face competition from several experimental therapies that are in various stages of development for acute rehabilitation following hip fracture surgery, including programs in development at Novartis AG and Morphosys AG. There are also several experimental therapies that are in various stages of clinical development for conditions characterized by muscle wasting by companies including GTx, Inc., Helsinn Group and Morphosys AG. In addition, nutritional and growth hormone-based therapies are sometimes used in patients experiencing muscle wasting.

VK2809

There are many therapies currently available and numerous others being developed for the treatment of hypercholesterolemia and dyslipidemia. If approved, VK2809 will face competition from therapies that are

currently available and from therapies that may become available in the future. Generic statin therapies such as atorvastatin are widely prescribed for the initial treatment of hypercholesterolemia. Cholesterol absorption inhibitors such as Merck & Co., Inc. s Zetia (ezetimibe), generic bile acid sequestrants such as coleselevam and generic fibrates such as fenofibrate are also prescribed for the treatment of hypercholesterolemia. Various combinations of these therapies are often prescribed for patients suffering from dyslipidemia. In addition, recently-approved antibody therapies targeting the proprotein convertase subtilisin/kexin type 9 (PCSK9) gene are expected to be prescribed for patients whose low-density lipoprotein (LDL) remains elevated despite treatment with existing cholesterol-lowering agents. While no therapies are currently approved for the treatment of non-alcoholic steatohepatitis, we are aware of several development-stage programs targeting this disease, including obeticholic acid from Intercept Pharmaceuticals, Inc., GFT550 from Genfit SA, aramchol from Galmed Pharmaceuticals Ltd., simtuzumab from Gilead Sciences, Inc., and emricisan from Conatus Pharmaceuticals Inc.

VK0214

In the U.S., there are currently no marketed therapies for the treatment of X-ALD. Hematopoietic stem cell therapy has been used to treat the most severe form of X-ALD, CALD. More recently, gene therapy has been shown to be effective in CALD as well. However, both treatments are invasive, requiring surgical intervention, and these do not appear to have an effect on the most pervasive form of X-ALD, AMN. High-dose biotin is under investigation for treatment of AMN. There are several experimental therapies that are in various stages of clinical development for X-ALD by companies, including MedDay Pharmaceuticals SAS and bluebird bio, Inc., which may be competitive with VK2809, if approved.

VK0612

In the U.S., VK0612, if approved, will face competition from a variety of currently marketed oral type 2 diabetes therapies, including metformin (generic), pioglitazone (generic), glimepiride (generic), sitagliptin (Merck & Co., Inc.) and canagliflozin (Johnson & Johnson). These therapies are well-established and are widely accepted by physicians, patients, caregivers and third-party payors as the standard of care for the treatment of type 2 diabetes. Physicians, patients and third-party payors may not accept the addition of VK0612 to their current treatment regimens for a variety of potential reasons, including:

- if they do not wish to incur any potential additional costs related to VK0612; or
- if they perceive the use of VK0612 to be of limited additional benefit to patients.

In addition to the currently approved and marketed type 2 diabetes therapies, there are a number of experimental drugs that are in various stages of clinical development by companies such as Eli Lilly and Company, Takeda Pharmaceutical Company Limited and TransTech Pharma, Inc.

Preclinical Programs Focused on EPOR Agonists and DGAT-1 Inhibitors

If any of our preclinical programs are ultimately determined safe and effective and approved for marketing, they may compete for market share with established therapies from a number of competitors, including large biopharmaceutical companies. Many therapies are currently available and numerous others are being developed for the treatment of anemia and obesity. Any products that we may develop from our preclinical programs may not be able to compete effectively with existing or future therapies.

We are subject to a multitude of manufacturing risks, any of which could substantially increase our costs and limit supply of our drug candidates.

The process of manufacturing our drug candidates is complex, highly regulated, and subject to several risks. For example, the process of manufacturing our drug candidates is extremely susceptible to product loss due to

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contamination, equipment failure or improper installation or operation of equipment, or vendor or operator error. Even minor deviations from normal manufacturing processes for any of our drug candidates could result in reduced production yields, product defects, and other supply disruptions. If microbial, viral, or other contaminations are discovered in our drug candidates or in the manufacturing facilities in which our drug candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. In addition, the manufacturing facilities in which our drug candidates are made could be adversely affected by equipment failures, labor shortages, natural disasters, power failures and numerous other factors.

In addition, any adverse developments affecting manufacturing operations for our drug candidates may result in shipment delays, inventory shortages, lot failures, withdrawals or recalls, or other interruptions in the supply of our drug candidates. We also may need to take inventory write-offs and incur other charges and expenses for drug candidates that fail to meet specifications, undertake costly remediation efforts, or seek costlier manufacturing alternatives.

We rely completely on third parties to manufacture our preclinical and clinical drug supplies, and our business, financial condition and results of operations could be harmed if those third parties fail to provide us with sufficient quantities of drug product, or fail to do so at acceptable quality levels or prices.

We do not currently have, nor do we plan to acquire, the infrastructure or capability internally to manufacture our preclinical and clinical drug supplies for use in our clinical trials, and we lack the resources and the capability to manufacture any of our drug candidates on a clinical or commercial scale. We rely on our manufacturers to purchase from third-party suppliers the materials necessary to produce our drug candidates for our clinical trials. There are a limited number of suppliers for raw materials that we use to manufacture our drugs, and there may be a need to identify alternate suppliers to prevent a possible disruption of the manufacture of the materials necessary to produce our drug candidates for our clinical trials, and, if approved, ultimately for commercial sale. We do not have any control over the process or timing of the acquisition of these raw materials by our manufacturers. Although we generally do not begin a clinical trial unless we believe we have a sufficient supply of a drug candidate to complete such clinical trial, any significant delay or discontinuity in the supply of a drug candidate, or the raw material components thereof, for an ongoing clinical trial due to the need to replace a third-party manufacturer could considerably delay completion of our clinical trials, product testing and potential regulatory approval of our drug candidates, which could harm our business, financial condition and results of operations.

We and our contract manufacturers are subject to significant regulation with respect to manufacturing our drug candidates. The manufacturing facilities on which we rely may not continue to meet regulatory requirements.

All entities involved in the preparation of therapeutics for clinical trials or commercial sale, including our existing contract manufacturers for our drug candidates, are subject to extensive regulation. Components of a finished therapeutic product approved for commercial sale or used in late-stage clinical trials must be manufactured in accordance with cGMP. These regulations govern manufacturing processes and procedures and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Poor control of production processes can lead to the introduction of contaminants or to inadvertent changes in the properties or stability of our drug candidates that may not be detectable in final product testing. We or our contract manufacturers must supply all necessary documentation in support of an NDA or marketing authorization application, or MAA, on a timely basis and must adhere to good laboratory practice and cGMP regulations enforced by the FDA, EMA or comparable foreign authorities through their facilities inspection program. Some of our contract manufacturers may not have produced a commercially approved pharmaceutical product and therefore may not have obtained the requisite regulatory authority approvals to do so. The facilities and quality systems of some or all of our

third-party contractors must pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of

our drug candidates or any of our other potential products. In addition, the regulatory authorities may, at any time, audit or inspect a manufacturing facility involved with the preparation of our drug candidates or any of our other potential products or the associated quality systems for compliance with the regulations applicable to the activities being conducted. Although we oversee the contract manufacturers, we cannot control the manufacturing process of, and are completely dependent on, our contract manufacturing partners for compliance with the regulatory requirements. If these facilities do not pass a pre-approval plant inspection, regulatory approval of the products may not be granted or may be substantially delayed until any violations are corrected to the satisfaction of the regulatory authority, if ever.

The regulatory authorities also may, at any time following approval of a product for sale, audit the manufacturing facilities of our third-party contractors. If any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of our product specifications or applicable regulations occurs independent of such an inspection or audit, we or the relevant regulatory authority may require remedial measures that may be costly or time consuming for us or a third party to implement, and that may include the temporary or permanent suspension of a clinical trial or commercial sales or the temporary or permanent closure of a facility. Any such remedial measures imposed upon us or third parties with whom we contract could materially harm our business, financial condition and results of operations.

If we or any of our third-party manufacturers fail to maintain regulatory compliance, the FDA, EMA or comparable foreign authorities can impose regulatory sanctions including, among other things, refusal to approve a pending application for a drug candidate, withdrawal of an approval, or suspension of production. As a result, our business, financial condition and results of operations may be materially and adversely affected.

Additionally, if supply from one manufacturer is interrupted, an alternative manufacturer would need to be qualified through an NDA supplement or MAA variation, or equivalent foreign regulatory filing, which could result in further delay. The regulatory agencies may also require additional studies or trials if a new manufacturer is relied upon for commercial production. Switching manufacturers may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

These factors could cause us to incur higher costs and could cause the delay or termination of clinical trials, regulatory submissions, required approvals, or commercialization of our drug candidates. Furthermore, if our suppliers fail to meet contractual requirements and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our clinical trials may be delayed or we could lose potential revenue.

Any collaboration arrangement that we may enter into in the future may not be successful, which could adversely affect our ability to develop and commercialize our current and potential future drug candidates.

We may seek collaboration arrangements with biopharmaceutical companies for the development or commercialization of our current and potential future drug candidates. To the extent that we decide to enter into collaboration agreements, we will face significant competition in seeking appropriate collaborators. Moreover, collaboration arrangements are complex and time consuming to negotiate, execute and implement. We may not be successful in our efforts to establish and implement collaborations or other alternative arrangements should we choose to enter into such arrangements, and the terms of the arrangements may not be favorable to us. If and when we collaborate with a third party for development and commercialization of a drug candidate, we can expect to relinquish some or all of the control over the future success of that drug candidate to the third party. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborators generally have significant discretion in determining the efforts and resources that they will apply to these collaborations.

Disagreements between parties to a collaboration arrangement can lead to delays in developing or commercializing the applicable drug candidate and can be difficult to resolve in a mutually beneficial manner. In

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some cases, collaborations with biopharmaceutical companies and other third parties are terminated or allowed to expire by the other party. Any such termination or expiration would adversely affect our business, financial condition and results of operations.

If we are unable to develop our own commercial organization or enter into agreements with third parties to sell and market our drug candidates, we may be unable to generate significant revenues.

We do not have a sales and marketing organization, and we have no experience as a company in the sales, marketing and distribution of pharmaceutical products. If any of our drug candidates are approved for commercialization, we may be required to develop our sales, marketing and distribution capabilities, or make arrangements with a third party to perform sales and marketing services. Developing a sales force for any resulting product or any product resulting from any of our other drug candidates is expensive and time consuming and could delay any product launch. We may be unable to establish and manage an effective sales force in a timely or cost-effective manner, if at all, and any sales force we do establish may not be capable of generating sufficient demand for our drug candidates. To the extent that we enter into arrangements with collaborators or other third parties to perform sales and marketing services, our product revenues are likely to be lower than if we marketed and sold our drug candidates independently. If we are unable to establish adequate sales and marketing capabilities, independently or with others, we may not be able to generate significant revenues and may not become profitable.

The commercial success of our drug candidates depends upon their market acceptance among physicians, patients, healthcare payors and the medical community.

Even if our drug candidates obtain regulatory approval, our products, if any, may not gain market acceptance among physicians, patients, healthcare payors and the medical community. The degree of market acceptance of any of our approved drug candidates will depend on a number of factors, including:

- the effectiveness of our approved drug candidates as compared to currently available products;
- patient willingness to adopt our approved drug candidates in place of current therapies;
- our ability to provide acceptable evidence of safety and efficacy;
- relative convenience and ease of administration;
- the prevalence and severity of any adverse side effects;
- restrictions on use in combination with other products;
- availability of alternative treatments;

pricing and cost-effectiveness assuming either competitive or potential premium pricing requirements, based on the profile of our drug candidates and target markets;

effectiveness of our or our partners sales and marketing strategy;

our ability to obtain sufficient third-party coverage or reimbursement; and

potential product liability claims.

In addition, the potential market opportunity for our drug candidates is difficult to precisely estimate. Our estimates of the potential market opportunity for our drug candidates include several key assumptions based on

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our industry knowledge, industry publications, third-party research reports and other surveys. Independent sources have not verified all of our assumptions. If any of these assumptions proves to be inaccurate, then the actual market for our drug candidates could be smaller than our estimates of our potential market opportunity. If the actual market for our drug candidates is smaller than we expect, our product revenue may be limited, it may be harder than expected to raise funds and it may be more difficult for us to achieve or maintain profitability. If we fail to achieve market acceptance of our drug candidates in the U.S. and abroad, our revenue will be limited and it will be more difficult to achieve profitability.

If we fail to obtain and sustain an adequate level of reimbursement for our potential products by third-party payors, potential future sales would be materially adversely affected.

There will be no viable commercial market for our drug candidates, if approved, without reimbursement from third-party payors. Reimbursement policies may be affected by future healthcare reform measures. We cannot be certain that reimbursement will be available for our current drug candidates or any other drug candidate we may develop. Additionally, even if there is a viable commercial market, if the level of reimbursement is below our expectations, our anticipated revenue and gross margins will be adversely affected.

Third-party payors, such as government or private healthcare insurers, carefully review and increasingly question and challenge the coverage of and the prices charged for drugs. Reimbursement rates from private health insurance companies vary depending on the company, the insurance plan and other factors. Reimbursement rates may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. There is a current trend in the U.S. healthcare industry toward cost containment.

Large public and private payors, managed care organizations, group purchasing organizations and similar organizations are exerting increasing influence on decisions regarding the use of, and reimbursement levels for, particular treatments. Such third-party payors, including Medicare, may question the coverage of, and challenge the prices charged for, medical products and services, and many third-party payors limit coverage of or reimbursement for newly approved healthcare products. In particular, third-party payors may limit the covered indications. Cost-control initiatives could decrease the price we might establish for products, which could result in product revenues being lower than anticipated. We believe our drugs will be priced significantly higher than existing generic drugs and consistent with current branded drugs. If we are unable to show a significant benefit relative to existing generic drugs, Medicare, Medicaid and private payors may not be willing to provide reimbursement for our drugs, which would significantly reduce the likelihood of our products gaining market acceptance.

We expect that private insurers will consider the efficacy, cost-effectiveness, safety and tolerability of our potential products in determining whether to approve reimbursement for such products and at what level. Obtaining these approvals can be a time consuming and expensive process. Our business, financial condition and results of operations would be materially adversely affected if we do not receive approval for reimbursement of our potential products from private insurers on a timely or satisfactory basis. Limitations on coverage could also be imposed at the local Medicare carrier level or by fiscal intermediaries. Medicare Part D, which provides a pharmacy benefit to Medicare patients as discussed below, does not require participating prescription drug plans to cover all drugs within a class of products. Our business, financial condition and results of operations could be materially adversely affected if Part D prescription drug plans were to limit access to, or deny or limit reimbursement of, our drug candidates or other potential products.

Reimbursement systems in international markets vary significantly by country and by region, and reimbursement approvals must be obtained on a country-by-country basis. In many countries, the product cannot be commercially launched until reimbursement is approved. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. The negotiation process in some

countries can exceed 12 months. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our products to other available therapies.

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If the prices for our potential products are reduced or if governmental and other third-party payors do not provide adequate coverage and reimbursement of our drugs, our future revenue, cash flows and prospects for profitability will suffer.

Recently enacted and future legislation may increase the difficulty and cost of commercializing our drug candidates and may affect the prices we may obtain if our drug candidates are approved for commercialization.

In the U.S. and some foreign jurisdictions, there have been a number of adopted and proposed legislative and regulatory changes regarding the healthcare system that could prevent or delay regulatory approval of our drug candidates, restrict or regulate post-marketing activities and affect our ability to profitably sell any of our drug candidates for which we obtain regulatory approval.

In the U.S., the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, changed the way Medicare covers and pays for pharmaceutical products. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and reimbursement rate that we receive for any of our approved products. While the MMA only applies to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the MMA may result in a similar reduction in payments from private payors.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, collectively the PPACA, intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against healthcare fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. The PPACA increased manufacturers rebate liability under the Medicaid Drug Rebate Program by increasing the minimum rebate amount for both branded and generic drugs and revised the definition of average manufacturer price, or AMP, which may also increase the amount of Medicaid drug rebates manufacturers are required to pay to states. The legislation also expanded Medicaid drug rebates and created an alternative rebate formula for certain new formulations of certain existing products that is intended to increase the rebates due on those drugs. The Centers for Medicare & Medicaid Services, which administers the Medicaid Drug Rebate Program, also has proposed to expand Medicaid rebates to the utilization that occurs in the territories of the U.S., such as Puerto Rico and the Virgin Islands. Further, beginning in 2011, the PPACA imposed a significant annual fee on companies that manufacture or import branded prescription drug products and required manufacturers to provide a 50% discount off the negotiated price of prescriptions filled by beneficiaries in the Medicare Part D coverage gap, referred to as the donut hole. Although it is too early to determine the full effects of the PPACA, the law appears likely to continue the downward pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

Legislative and regulatory proposals have been introduced at both the state and federal level to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We are not sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our drug candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA s approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing approval testing and other requirements.

We are subject to fraud and abuse and similar laws and regulations, and a failure to comply with such regulations or prevail in any litigation related to noncompliance could harm our business, financial condition

and results of operations.

In the U.S., we are subject to various federal and state healthcare fraud and abuse laws, including anti-kickback laws, false claims laws and other laws intended, among other things, to reduce fraud and abuse in federal and

state healthcare programs. The federal Anti-Kickback Statute makes it illegal for any person, including a prescription drug manufacturer, or a party acting on its behalf, to knowingly and willfully solicit, receive, offer or pay any remuneration that is intended to induce the referral of business, including the purchase, order or prescription of a particular drug, or other good or service for which payment in whole or in part may be made under a federal healthcare program, such as Medicare or Medicaid. Although we seek to structure our business arrangements in compliance with all applicable requirements, these laws are broadly written, and it is often difficult to determine precisely how the law will be applied in specific circumstances. Accordingly, it is possible that our practices may be challenged under the federal Anti-Kickback Statute.

The federal False Claims Act prohibits anyone from, among other things, knowingly presenting or causing to be presented for payment to the government, including the federal healthcare programs, claims for reimbursed drugs or services that are false or fraudulent, claims for items or services that were not provided as claimed, or claims for medically unnecessary items or services. Under the Health Insurance Portability and Accountability Act of 1996, we are prohibited from knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private payors, or knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services to obtain money or property of any healthcare benefit program. Violations of fraud and abuse laws may be punishable by criminal or civil sanctions, including penalties, fines or exclusion or suspension from federal and state healthcare programs such as Medicare and Medicaid and debarment from contracting with the U.S. government. In addition, private individuals have the ability to bring actions on behalf of the government under the federal False Claims Act as well as under the false claims laws of several states.

Many states have adopted laws similar to the federal Anti-Kickback Statute, some of which apply to the referral of patients for healthcare services reimbursed by any source, not just governmental payors. In addition, some states have passed laws that require pharmaceutical companies to comply with the April 2003 Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers or the Pharmaceutical Research and Manufacturers of America s Code on Interactions with Healthcare Professionals. Several states also impose other marketing restrictions or require pharmaceutical companies to make marketing or price disclosures to the state. There are ambiguities as to what is required to comply with these state requirements and if we fail to comply with an applicable state law requirement we could be subject to penalties.

Neither the government nor the courts have provided definitive guidance on the application of fraud and abuse laws to our business. Law enforcement authorities are increasingly focused on enforcing these laws, and it is possible that some of our practices may be challenged under these laws. Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. If we are found in violation of one of these laws, we could be subject to significant civil, criminal and administrative penalties, damages, fines, exclusion from governmental funded federal or state healthcare programs and the curtailment or restructuring of our operations. If this occurs, our business, financial condition and results of operations may be materially adversely affected.

If we face allegations of noncompliance with the law and encounter sanctions, our reputation, revenues and liquidity may suffer, and any of our drug candidates that are ultimately approved for commercialization could be subject to restrictions or withdrawal from the market.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response, and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to generate revenues from any of our drug candidates that are ultimately approved for commercialization. If regulatory sanctions are applied or if regulatory approval is withdrawn, our

business, financial condition and results of operations will be adversely affected. Additionally, if we are unable to generate revenues from product sales, our potential for achieving profitability will be diminished and our need to raise capital to fund our operations will increase.

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If we fail to retain current members of our senior management and scientific personnel, or to attract and keep additional key personnel, we may be unable to successfully develop or commercialize our drug candidates.

Our success depends on our continued ability to attract, retain and motivate highly qualified management and scientific personnel. The loss of any of our key personnel could delay or prevent the development of our drug candidates. These personnel are at-will employees and may terminate their employment with us at any time; however, our current executive officers have agreed to provide us with at least 60 days advance notice of resignation pursuant to their employment agreements with us. The replacement of key personnel likely would involve significant time and costs, and may significantly delay or prevent the achievement of our business objectives. We do not maintain key person insurance on any of our employees.

From time to time, our management seeks the advice and guidance of certain scientific advisors and consultants regarding clinical and regulatory development programs and other customary matters. These scientific advisors and consultants are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. In addition, our scientific advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with ours.

Competition for qualified personnel is intense, especially in the greater San Diego, California area where we have a substantial presence and need for highly skilled personnel. We may not be successful in attracting qualified personnel to fulfill our current or future needs. Competitors and others have in the past attempted, and are likely in the future to attempt, to recruit our employees. While our employees are required to sign standard agreements concerning confidentiality and ownership of inventions, we generally do not have employment contracts or non-competition agreements with any of our personnel. The loss of the services of any of our key personnel, the inability to attract or retain highly qualified personnel in the future or delays in hiring such personnel, particularly senior management and other technical personnel, could materially and adversely affect our business, financial condition and results of operations.

We will need to increase the size of our organization and may not successfully manage our growth.

As of October 31, 2015, we had nine full-time employees, one part-time employee and a small number of consultants, and our management systems currently in place are not likely to be adequate to support our future growth plans. Our ability to grow and to manage our growth effectively will require us to hire, train, retain, manage and motivate additional employees and to implement and improve our operational, financial and management systems. These demands also may require the hiring of additional senior management personnel or the development of additional expertise by our senior management personnel. Hiring a significant number of additional employees, particularly those at the management level, would increase our expenses significantly. Moreover, if we fail to expand and enhance our operational, financial and management systems in conjunction with our potential future growth, it could have a material adverse effect on our business, financial condition and results of operations.

Our management s relative lack of public company experience could put us at greater risk of incurring fines or regulatory actions for failure to comply with federal securities laws and could put us at a competitive disadvantage, and could require our management to devote additional time and resources to ensure compliance with applicable corporate governance requirements.

Some of our executive officers have limited experience in managing and operating a public company, which could have an adverse effect on their ability to quickly respond to problems or adequately address issues and matters applicable to public companies. Any failure to comply with federal securities laws, rules or regulations could subject us to fines or regulatory actions, which may materially adversely affect our business, financial condition and results of

operations. Further, since some of our executive officers have minimal public company

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experience, we may have to dedicate additional time and resources to comply with legally mandated corporate governance policies relative to our competitors whose management teams have more public company experience.

We are exposed to product liability, non-clinical and clinical liability risks which could place a substantial financial burden upon us, should lawsuits be filed against us.

Our business exposes us to potential product liability and other liability risks that are inherent in the testing, manufacturing and marketing of pharmaceutical formulations and products. In addition, the use in our clinical trials of pharmaceutical products and the subsequent sale of these products by us or our potential collaborators may cause us to bear a portion of or all product liability risks. A successful liability claim or series of claims brought against us could have a material adverse effect on our business, financial condition and results of operations.

We currently maintain product liability insurance; however, there can be no assurance that we will be able to continue to maintain such insurance, and we may be unable to obtain replacement product liability insurance on commercially reasonable terms or in adequate amounts. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated adverse effects. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business.

Our research and development activities involve the use of hazardous materials, which subject us to regulation, related costs and delays and potential liabilities.

Our research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive compounds, and we will need to develop additional safety procedures for the handling and disposing of hazardous materials. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials. Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. We may incur substantial costs to comply with, and substantial fines or penalties if we violate any of these laws or regulations.

We rely significantly on information technology and any failure, inadequacy, interruption or security lapse of that technology, including any cybersecurity incidents, could harm our ability to operate our business effectively.

Despite the implementation of security measures, our internal computer systems and those of third parties with which we contract are vulnerable to damage from cyber-attacks, computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. System failures, accidents or security breaches could cause interruptions in our operations, and could result in a material disruption of our drug development and clinical activities and business operations, in addition to possibly requiring substantial expenditures of resources to remedy. The loss of drug development or clinical trial data could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and our development programs and the development of our drug candidates could be delayed.

Our employees and consultants may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of employee or consultant fraud or other misconduct. Misconduct by our employees or consultants could include intentional failures to comply with FDA regulations, provide accurate information to

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the FDA, comply with manufacturing standards, comply with federal and state healthcare fraud and abuse laws and regulations, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commissions, customer incentive programs and other business arrangements. Employee and consultant misconduct also could involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter such misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a material adverse effect on our business, financial condition and results of operations, and result in the imposition of significant fines or other sanctions against us.

Business disruptions such as natural disasters could seriously harm our future revenues and financial condition and increase our costs and expenses.

Our corporate headquarters are located in greater San Diego, California, a region known for seismic activity. In addition, our third party manufacturers are located in the southeastern part of the United States, an area subject to hurricanes and related natural disasters. Our suppliers may also experience a disruption in their business as a result of natural disasters. A significant natural disaster, such as an earthquake, hurricane, flood or fire, could severely damage or destroy our headquarters or facilities or the facilities of our manufacturers or suppliers, which could have a material and adverse effect on our business, financial condition and results of operations. In addition, terrorist acts or acts of war targeted at the U.S., and specifically the greater San Diego, California region, could cause damage or disruption to us, our employees, facilities, partners and suppliers, which could have a material adverse effect on our business, financial condition and results of operations.

We may engage in strategic transactions that could impact our liquidity, increase our expenses and present significant distractions to our management.

From time to time, we may consider strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing of products, drug candidates or technologies. Additional potential transactions that we may consider include a variety of different business arrangements, including spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. Any such transaction may require us to incur non-recurring or other charges, may increase our near- and long-term expenditures and may pose significant integration challenges or disrupt our management or business, which could adversely affect our business, financial condition and results of operations. For example, these transactions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- disruption of our business and diversion of our management s time and attention in order to develop acquired products, drug candidates or technologies;

incurrence of substantial debt or dilutive issuances of equity securities to pay for any of these transactions;

higher-than-expected transaction and integration costs;

write-downs of assets or goodwill or impairment charges;

increased amortization expenses;

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- difficulty and cost in combining the operations and personnel of any acquired businesses or product lines with our operations and personnel;

- impairment of relationships with key suppliers or customers of any acquired businesses or product lines due to changes in management and ownership; and

- inability to retain key employees of any acquired businesses.

Accordingly, although there can be no assurance that we will undertake or successfully complete any transactions of the nature described above, any transactions that we do complete may be subject to the foregoing or other risks, and could have a material adverse effect on our business, financial condition and results of operations.

Our employment agreements with each of our executive officers may require us to pay severance benefits to any of those persons who are terminated in connection with a change in control of our company, which could harm our financial condition or results.

All of our executive officers are parties to employment agreements that contain change in control and severance provisions in the event of a termination of employment in connection with a change in control of our company providing for cash payments for severance and other benefits and acceleration of vesting of stock options and shares of restricted stock. The accelerated vesting of options and shares of restricted stock could result in dilution to our existing stockholders and lower the market price of our common stock. The payment of these severance benefits could harm our financial condition and results. In addition, these potential severance payments may discourage or prevent third parties from seeking a business combination with us.

Risks Relating to Our Intellectual Property

We may not be successful in obtaining or maintaining necessary rights to our drug candidates through acquisitions and in-licenses.

We currently have intellectual property rights to develop our drug candidates through licenses from Ligand. As of September 30, 2015, we did not own any patents or have any patent applications pending. Because many of our programs require the use of proprietary rights held by Ligand, the growth of our business will likely depend in part on our ability to maintain and exploit these proprietary rights. In addition, we may need to acquire or in-license additional intellectual property in the future. We may be unable to acquire or in-license any compositions, methods of use, processes or other intellectual property rights from third parties that we identify as necessary for our drug candidates. We face competition with regard to acquiring and in-licensing third-party intellectual property rights, including from a number of more established companies. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license intellectual property rights to us. We also may be unable to acquire or in-license third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

We may enter into collaboration agreements with U.S. and foreign academic institutions to accelerate development of our current or future preclinical drug candidates. Typically, these agreements include an option for the company to negotiate a license to the institution s intellectual property rights resulting from the collaboration. Even with such an option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to license rights from a collaborating institution, the institution may offer the intellectual property

rights to other parties, potentially blocking our ability to pursue our desired program.

If we are unable to successfully obtain required third-party intellectual property rights or maintain our existing intellectual property rights, we may need to abandon development of the related program and our business, financial condition and results of operations could be materially and adversely affected.

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If we fail to comply with our obligations in the agreements under which we in-license intellectual property and other rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose intellectual property rights that are important to our business.

The Master License Agreement is important to our business and we expect to enter into additional license agreements in the future. The Master License Agreement imposes, and we expect that future license agreements will impose, various diligence, milestone payment, royalty and other obligations on us. If we fail to comply with our obligations under these agreements, or if we file for bankruptcy, we may be required to make certain payments to the licensor, we may lose the exclusivity of our license, or the licensor may have the right to terminate the license, in which event we would not be able to develop or market products covered by the license. Additionally, the milestone and other payments associated with these licenses could materially and adversely affect our business, financial condition and results of operations.

Pursuant to the terms of the Master License Agreement, Ligand may terminate the Master License Agreement under certain circumstances, including, but not limited to: (1) in the event of our insolvency or bankruptcy, (2) if we do not pay an undisputed amount owing under the Master License Agreement when due and fail to cure such default within a specified period of time, or (3) if we default on certain of our material obligations and fail to cure the default within a specified period of time. If the Master License Agreement is terminated in its entirety or with respect to a specific licensed program for any reason, among other consequences, all licenses granted to us under the Master License Agreement (or with respect to the specific licensed program) will terminate and we may be requested to assign and transfer to Ligand certain regulatory documentation and regulatory approvals related to the licensed programs (or those related to the specific licensed program), and we may be required to wind down any ongoing clinical trials with respect to the licensed programs (or those related to the specific licensed program). Additionally, Ligand may require us to assign to Ligand the trademarks owned by us relating to the licensed programs (or those related to the specific licensed program), and we would be obligated to grant to Ligand a license under any patent rights and know-how controlled by us to the extent necessary to make, have made, import, use, offer to sell and sell the licensed programs (or those related to the specific licensed program) anywhere in the world at a royalty rate in the low single digits.

In some cases, patent prosecution of our licensed technology may be controlled solely by the licensor. If our licensors fail to obtain and maintain patent or other protection for the proprietary intellectual property we in-license from them, we could lose our rights to the intellectual property or our exclusivity with respect to those rights, and our competitors could market competing products using the intellectual property. In certain cases, we may control the prosecution of patents resulting from licensed technology. In the event we breach any of our obligations related to such prosecution, we may incur significant liability to our licensing partners. Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues. Disputes may arise regarding intellectual property subject to a licensing agreement, including, but not limited to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights;

our diligence obligations under the license agreement and what activities satisfy those diligence obligations;

the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our collaborators; and

the priority of invention of patented technology.

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If disputes over intellectual property and other rights that we have in-licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected drug candidates. If we fail to comply with any such obligations to our licensor, such licensor may terminate their licenses to us, in which case we would not be able to market products covered by these licenses. The loss of our license with Ligand, and potentially other licenses that we enter into in the future, would have a material adverse effect on our business.

We may be required to pay milestones and royalties to Ligand in connection with our use of the licensed technology under the Master License Agreement, which could adversely affect the overall profitability for us of any products that we may seek to commercialize.

Under the terms of the Master License Agreement, we may be obligated to pay Ligand up to an aggregate of approximately $1.54 billion in development, regulatory and sales milestones. We will also be required to pay Ligand single-digit royalties on future worldwide net product sales. These royalty payments could adversely affect the overall profitability for us of any products that we may seek to commercialize.

We may not be able to protect our proprietary or licensed technology in the marketplace.

We depend on our ability to protect our proprietary or licensed technology. We rely on trade secret, patent, copyright and trademark laws, and confidentiality, licensing and other agreements with employees and third parties, all of which offer only limited protection. Our success depends in large part on our ability, Ligand s and any future licensor s or licensee s ability to obtain and maintain patent protection in the U.S. and other countries with respect to our proprietary or licensed technology and products. We believe we will be able to obtain, through prosecution of patent applications covering technology licensed from others, adequate patent protection for our proprietary drug technology, including those related to our in-licensed intellectual property. If we are compelled to spend significant time and money protecting or enforcing our licensed patents and future patents we may own, designing around patents held by others or licensing or acquiring, potentially for large fees, patents or other proprietary rights held by others, our business, financial condition and results of operations may be materially and adversely affected. If we are unable to effectively protect the intellectual property that we own or in-license, other companies may be able to offer the same or similar products for sale, which could materially adversely affect our business, financial condition and results of operations. The patents of others from whom we may license technology, and any future patents we may own, may be challenged, narrowed, invalidated or circumvented, which could limit our ability to stop competitors from marketing the same or similar products or limit the length of term of patent protection that we may have for our products.

The patent positions of pharmaceutical products are often complex and uncertain. The breadth of claims allowed in pharmaceutical patents in the U.S. and many jurisdictions outside of the U.S. is not consistent. For example, in many jurisdictions, the support standards for pharmaceutical patents are becoming increasingly strict. Some countries prohibit method of treatment claims in patents. Changes in either the patent laws or interpretations of patent laws in the U.S. and other countries may diminish the value of our licensed or owned intellectual property or create uncertainty. In addition, publication of information related to our current drug candidates and potential products may prevent us from obtaining or enforcing patents relating to these drug candidates and potential products, including without limitation composition-of-matter patents, which are generally believed to offer the strongest patent protection.

Our intellectual property includes licenses covering issued patents and pending patent applications for composition of matter and method of use. For VK5211, we in-license seven patents in the U.S. and several other patents in certain foreign jurisdictions. For each of VK2809 and VK0214, we in-license a patent in the U.S. and, for VK2809, additional patents in certain foreign jurisdictions. For VK0612, we in-license two patents in the U.S. and several other patents in certain foreign jurisdictions. With respect to our other current drug candidates, we have a license covering several

issued patents and pending patent applications both in the U.S. and in certain

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foreign jurisdictions. See the section of this prospectus entitled Business Intellectual Property for additional information.

Patents that we currently license and patents that we may own or license in the future do not necessarily ensure the protection of our licensed or owned intellectual property for a number of reasons, including without limitation the following:

- the patents may not be broad or strong enough to prevent competition from other products that are identical or similar to our drug candidates;
- there can be no assurance that the term of a patent can be extended under the provisions of patent term extension afforded by U.S. law or similar provisions in foreign countries, where available;
- the issued patents and patents that we may obtain or license in the future may not prevent generic entry into the U.S. market for our drug candidates;
- we do not at this time license or own a granted European patent or national phase patents in any European jurisdictions that would prevent generic entry into the European market for our primary drug candidates, VK5211 and VK2809;
- we, or third parties from who we in-license or may license patents, may be required to disclaim part of the term of one or more patents;
- there may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim;
- there may be prior art of which we are aware, which we do not believe affects the validity or enforceability of a patent claim, but which, nonetheless, ultimately may be found to affect the validity or enforceability of a patent claim;
- there may be other patents issued to others that will affect our freedom to operate;
- if the patents are challenged, a court could determine that they are invalid or unenforceable;
- there might be a significant change in the law that governs patentability, validity and infringement of our licensed patents or any future patents we may own that adversely affects the scope of our patent rights;

a court could determine that a competitor s technology or product does not infringe our licensed patents or any future patents we may own; and

the patents could irretrievably lapse due to failure to pay fees or otherwise comply with regulations or could be subject to compulsory licensing.

If we encounter delays in our development or clinical trials, the period of time during which we could market our potential products under patent protection would be reduced.

Our competitors may be able to circumvent our licensed patents or future patents we may own by developing similar or alternative technologies or products in a non-infringing manner. Our competitors may seek to market generic versions of any approved products by submitting abbreviated new drug applications to the FDA in which our competitors claim that our licensed patents or any future patents we may own are invalid, unenforceable or not infringed. Alternatively, our competitors may seek approval to market their own products similar to or

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otherwise competitive with our products. In these circumstances, we may need to defend or assert our licensed patents or any future patents we may own, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or other agency with jurisdiction may find our licensed patents or any future patents we may own invalid or unenforceable. We may also fail to identify patentable aspects of our research and development before it is too late to obtain patent protection. Even if we own or in-license valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

The issuance of a patent is not conclusive as to its inventorship, scope, ownership, priority, validity or enforceability. In this regard, third parties may challenge our licensed patents or any future patents we may own in the courts or patent offices in the U.S. and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and potential products. In addition, given the amount of time required for the development, testing and regulatory review of new drug candidates, patents protecting such drug candidates might expire before or shortly after such drug candidates are commercialized.

We may infringe the intellectual property rights of others, which may prevent or delay our drug development efforts and prevent us from commercializing or increase the costs of commercializing our products.

Our commercial success depends significantly on our ability to operate without infringing the patents and other intellectual property rights of third parties. For example, there could be issued patents of which we are not aware that our current or potential future drug candidates infringe. There also could be patents that we believe we do not infringe, but that we may ultimately be found to infringe.

Moreover, patent applications are in some cases maintained in secrecy until patents are issued. The publication of discoveries in the scientific or patent literature frequently occurs substantially later than the date on which the underlying discoveries were made and patent applications were filed. Because patents can take many years to issue, there may be currently pending applications of which we are unaware that may later result in issued patents that our drug candidates or potential products infringe. For example, pending applications may exist that claim or can be amended to claim subject matter that our drug candidates or potential products infringe. Competitors may file continuing patent applications claiming priority to already issued patents in the form of continuation, divisional, or continuation-in-part applications, in order to maintain the pendency of a patent family and attempt to cover our drug candidates.

Third parties may assert that we are employing their proprietary technology without authorization and may sue us for patent or other intellectual property infringement. These lawsuits are costly and could adversely affect our business, financial condition and results of operations and divert the attention of managerial and scientific personnel. If we are sued for patent infringement, we would need to demonstrate that our drug candidates, potential products or methods either do not infringe the claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving invalidity is difficult. For example, in the U.S., proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted in pursuing these proceedings, which could have a material adverse effect on us. In addition, we may not have sufficient resources to bring these actions to a successful conclusion. If a court holds that any third-party patents are valid, enforceable and cover our products or their use, the holders of any of these patents may be able to block our ability to commercialize our products unless we acquire or obtain a license under the applicable patents or until the patents expire.

We may not be able to enter into licensing arrangements or make other arrangements at a reasonable cost or on reasonable terms. Any inability to secure licenses or alternative technology could result in delays in the

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introduction of our products or lead to prohibition of the manufacture or sale of products by us. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, in any such proceeding or litigation, we could be found liable for monetary damages, including treble damages and attorneys fees, if we are found to have willfully infringed a patent. A finding of infringement could prevent us from commercializing our drug candidates or force us to cease some of our business operations, which could materially and adversely affect our business, financial condition and results of operations. Any claims by third parties that we have misappropriated their confidential information or trade secrets could have a similar material and adverse effect on our business, financial condition and results of operations. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

Any claims or lawsuits relating to infringement of intellectual property rights brought by or against us will be costly and time consuming and may adversely affect our business, financial condition and results of operations.

We may be required to initiate litigation to enforce or defend our licensed and owned intellectual property. These lawsuits can be very time consuming and costly. There is a substantial amount of litigation involving patent and other intellectual property rights in the biopharmaceutical industry generally. Such litigation or proceedings could substantially increase our operating expenses and reduce the resources available for development activities or any future sales, marketing or distribution activities.

In any infringement litigation, any award of monetary damages we receive may not be commercially valuable. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation. Moreover, there can be no assurance that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are resolved. Further, any claims we assert against a perceived infringer could provoke these parties to assert counterclaims against us alleging that we have infringed their patents. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

In addition, our licensed patents and patent applications, and patents and patent applications that we may own or license in the future, could face other challenges, such as interference proceedings, opposition proceedings, re-examination proceedings and other forms of post-grant review. Any of these challenges, if successful, could result in the invalidation of, or in a narrowing of the scope of, any of our licensed patents and patent applications and patents and patent applications that we may own or license in the future subject to challenge. Any of these challenges, regardless of their success, would likely be time consuming and expensive to defend and resolve and would divert our management and scientific personnel s time and attention.

In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the market price of our common stock.

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 and is costly, time-consuming and inherently uncertain. For example, the U.S. has recently enacted and is currently implementing wide-ranging patent reform legislation. Specifically, on

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September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law and included a number of significant changes to U.S. patent law. These included changes in the way patent applications will be prosecuted, including a transition to a first-to-file system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention, and may also affect patent litigation. Under a first-to-file system, a third party that files a patent application with the U.S. Patent and Trademark Office, or the USPTO, before us could be awarded a patent covering an invention of ours even if we made the invention before it was made by the third party. The USPTO has developed new and untested regulations and procedures to govern the full implementation of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first-to-file provisions, became effective in March 2013. The Leahy-Smith Act has also introduced procedures that may make it easier for third parties to challenge issued patents, as well as to intervene in the prosecution of patent applications. Finally, the Leahy-Smith Act contains new statutory provisions that still require the USPTO to issue new regulations for their implementation, and it may take the courts years to interpret the provisions of the new statute. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on our business, the cost of prosecuting our licensed and future patent applications, our ability to obtain patents based on our licensed and future patent applications and our ability to enforce or defend our licensed or future issued patents. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our licensed and future patent applications and the enforcement or defense of our licensed and future patents, all of which could have a material adverse effect on our business, financial condition and results of operations.

In addition, the U.S. 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 USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce patents that we might obtain in the future.

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

Filing, prosecuting and defending patents on drug candidates throughout the world would be prohibitively expensive. Competitors may use our licensed and owned technologies in jurisdictions where we have not licensed or obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we may obtain or license patent protection, but where patent enforcement is not as strong as that in the U.S. These products may compete with our products in jurisdictions where we do not have any issued or licensed patents and any future 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 licensed patents and future patents we may own, or marketing of competing products in violation of our proprietary rights generally. 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 U.S. As a result, we may encounter significant problems in protecting and defending our licensed and owned intellectual property both in the U.S. and abroad. For example, China, where we currently have seven licensed patents and three licensed patent applications, currently affords less protection to a company s intellectual property than some other jurisdictions. As such, the lack of strong patent and other intellectual property protection in China may significantly increase our

vulnerability as regards unauthorized disclosure or use of our intellectual property and undermine our competitive position. Proceedings to enforce our future patent rights, if any, in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

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Many countries, including European Union countries, India, Japan and China, have compulsory licensing laws under which a patent owner may be compelled under certain circumstances to grant licenses to third parties. In those countries, we currently have an aggregate of 18 licensed patents and 17 licensed patent applications and may have limited remedies if patents are infringed or if we are compelled to grant a license to a third party, which could materially diminish the value of those patents. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we own or license.

We may be unable to adequately prevent disclosure of trade secrets and other proprietary information.

In order to protect our proprietary and licensed technology and processes, we rely in part on confidentiality agreements with our corporate partners, employees, consultants, manufacturers, outside scientific collaborators and sponsored researchers and other advisors. These agreements may not effectively prevent disclosure of our confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. In addition, others may independently discover our trade secrets and proprietary information. Failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

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

We employ individuals who were previously employed at other biopharmaceutical companies. Although we have no knowledge of any such claims against us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of our employees former employers or other third parties. Litigation may be necessary to defend against these claims. There is no guarantee of success in defending these claims, and even if we are successful, litigation could result in substantial cost and be a distraction to our management and other employees. To date, none of our employees have been subject to such claims.

We may be subject to claims challenging the inventorship of our licensed patents, any future patents we may own and other intellectual property.

Although we are not currently experiencing any claims challenging the inventorship of our licensed patents or our licensed or owned intellectual property, we may in the future be subject to claims that former employees, collaborators or other third parties have an interest in our licensed patents or other licensed or owned intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our drug candidates. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business, financial condition and results of operations. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

If we do not obtain additional protection under the Hatch-Waxman Amendments and similar foreign legislation extending the terms of our licensed patents and any future patents we may own, our business, financial condition and results of operations may be materially and adversely affected.

Depending upon the timing, duration and specifics of FDA regulatory approval for our drug candidates, one or more of our licensed U.S. patents or future U.S. patents that we may license or own may be eligible for limited patent term

restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to

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five years as compensation for patent term lost during drug development and the FDA regulatory review process. This period is generally one-half the time between the effective date of an investigational new drug application, or IND (falling after issuance of the patent), and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application. Patent term restorations, however, cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval by the FDA.

The application for patent term extension is subject to approval by the USPTO, in conjunction with the FDA. It takes at least six months to obtain approval of the application for patent term extension. We may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or restoration or the term of any such extension is less than we request, the period during which we will have the right to exclusively market our product will be shortened and our competitors may obtain earlier approval of competing products, and our ability to generate revenues could be materially adversely affected.

Risks Relating to this Offering and Ownership of Our Common Stock

The market price of our common stock may be highly volatile.

The trading price of our common stock is likely to be volatile. Our stock price could be subject to wide fluctuations in response to a variety of factors, including the following:

- any delay in filing an NDA for any of our drug candidates and any adverse development or perceived adverse development with respect to the FDA s review of that NDA;
- adverse results or delays in clinical trials, if any;
- significant lawsuits, including patent or stockholder litigation;
- inability to obtain additional funding;
- failure to successfully develop and commercialize our drug candidates;
- changes in laws or regulations applicable to our drug candidates;
- inability to obtain adequate product supply for our drug candidates, or the inability to do so at acceptable prices;
- unanticipated serious safety concerns related to any of our drug candidates;

adverse regulatory decisions;

introduction of new products or technologies by our competitors;

failure to meet or exceed drug development or financial projections we provide to the public;

failure to meet or exceed the estimates and projections of the investment community;

the perception of the biopharmaceutical industry by the public, legislatures, regulators and the investment community;

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announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;

disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our licensed and owned technologies;

additions or departures of key scientific or management personnel;

changes in the market valuations of similar companies;

general economic and market conditions and overall fluctuations in the U.S. equity market;

sales of our common stock by us or our stockholders, including Ligand, in the future; and

trading volume of our common stock.

In addition, the stock market, in general, and small biopharmaceutical companies, in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. Further, a decline in the financial markets and related factors beyond our control may cause our stock price to decline rapidly and unexpectedly.

An active trading market for our common stock may not be sustained, and you may not be able to resell your common stock at a desired market price.

Our shares of common stock began trading on the Nasdaq Capital Market on April 29, 2015. If no active trading market for our common stock develops or is sustained, you may be unable to sell your shares when you wish to sell them or at a price that you consider attractive or satisfactory. The lack of an active market may also adversely affect our ability to raise capital by selling securities in the future, or impair our ability to acquire or in-license other drug candidates, businesses or technologies using our shares as consideration.

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

As of October 31, 2015, our executive officers, directors, 5% or greater stockholders and their affiliates and family members beneficially own 75.15% of our common stock. Therefore, our executive officers, directors, 5% or greater stockholders and their affiliates and family members have the ability to influence us through this ownership position.

This significant concentration of stock ownership may adversely affect the trading price for our common stock because investors often perceive disadvantages in owning stock in companies with controlling stockholders. As a result, these stockholders, if they acted together, could significantly influence all matters requiring approval by our stockholders, including the election of directors and the approval of mergers or other business combination transactions. These stockholders may be able to determine all matters requiring stockholder approval. The interests of

these stockholders may not always coincide with our interests or the interests of other stockholders. This may also 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 and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the prevailing market price for our common stock.

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Upon completion of this offering, Ligand is still expected to be our largest stockholder, which may limit the ability of our stockholders to influence corporate matters and may give rise to conflicts of interest.

As of October 31, 2015, Ligand and its affiliates beneficially own approximately 49.4% of our outstanding common stock. In addition to the above ownership, Ligand may elect to convert the amounts outstanding under that certain Secured Convertible Promissory Note held by Ligand, or the Ligand Note, upon the earlier of (1) the consummation of a bona fide capital financing transaction or series of financing transactions with one or more financial non-strategic investors with aggregate net proceeds to us of at least $20,000,000 and pursuant to which we issue shares of our equity securities, (2) the consummation of a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended, or the Securities Act, on Form S-1 or Form S-3, or any successor forms, and (3) May 4, 2016. Upon the occurrence of such an event, Ligand will have the option to convert the amounts outstanding under the Ligand Note into 663,090 shares of our common stock, based on $2,652,361 of principal and interest outstanding under the Ligand Note as of September 30, 2015. Accordingly, Ligand may be able to exert significant influence over us and any action requiring the approval of the holders of our common stock, including the election of directors and the approval of mergers or other business combination transactions. This concentration of voting power may make it less likely that any other holder of our common stock or our board of directors will be able to affect the way we are managed and could delay or prevent an acquisition of us on terms that other stockholders may desire.

Furthermore, the interests of Ligand may not be aligned with our other stockholders and this could lead to actions that may not be in the best interests of our other stockholders. For example, Ligand may have different tax positions or strategic plans for us, which could influence its decisions regarding whether and when we should dispose of assets or incur new or refinance existing indebtedness. In addition, Ligand s significant ownership in us may discourage someone from making a significant equity investment in us, or could discourage transactions involving a change in control, including transactions in which our stockholders might otherwise receive a premium for their shares over the then-current market price.

Pursuant to the management rights letter between us and Ligand, dated May 21, 2014, Ligand has the right to nominate one individual for election to our board of directors. Matthew W. Foehr, Ligand s President and Chief Operating Officer, is the current member of our board of directors nominated by Ligand. As a result of our relationship with Ligand, there may be transactions between us and Ligand that could present an actual or perceived conflict of interest. These conflicts of interest may lead Mr. Foehr to recuse himself from actions of our board of directors with respect to any transactions involving Ligand or its affiliates.

In addition, if Ligand obtains a majority of our common stock, Ligand would be able to control a number of matters submitted to our stockholders for approval, as well as our management and affairs. For example, Ligand would be able to control the election of directors, and may be able to control amendments to our organizational documents and approvals of any merger, consolidation, sale of all or substantially all of our assets or other business combination or reorganization. In addition, if Ligand obtains a majority of our common stock, we would be deemed a controlled company within the meaning of the rules and listing standards of The Nasdaq Stock Market LLC. Under the rules and listing standards of The Nasdaq Stock Market LLC, a company of which more than 50% of the voting power is held by another person or group of persons acting together is a controlled company and may elect not to comply with certain rules and listing standards of The Nasdaq Stock Market LLC regarding corporate governance, including: (1) the requirement that a majority of our board of directors consist of independent directors, (2) the requirement that the compensation of our officers be determined or recommended to our board of directors by a compensation committee that is composed entirely of independent directors, and (3) the requirement that director nominees be selected or recommended to our board of directors by a majority of independent directors or a nominating committee that is composed entirely of independent directors.

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We are an emerging growth company within the meaning of the Securities Act, and if we decide to take advantage of certain exemptions from various reporting requirements applicable to emerging growth companies, our common stock could be less attractive to investors.

For as long as we remain an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, we will have the option to take advantage of certain exemptions from various reporting and other 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 of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, 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 may take advantage of these and other exemptions until we are no longer an emerging growth company.

The JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. However, we have chosen to opt out of such extended transition period, 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. Our decision to opt out of the extended transition period is irrevocable.

We will remain an emerging growth company until the earliest of (1) the last day of the fiscal year during which we have total annual gross revenues of $1.0 billion or more, (2) December 31, 2020 (the last day of the fiscal year following the fifth anniversary of the completion of our initial public offering), (3) the date on which we have, during the previous three-year period, issued more than $1.0 billion in non-convertible debt, and (4) the date on which we are deemed to be a large accelerated filer under the Securities Exchange Act of 1934, as amended, or the Exchange Act (i.e., the first day of the fiscal year after we have (a) more than $700,000,000 in outstanding common equity held by our non-affiliates, measured each year on the last day of our second fiscal quarter, and (b) been public for at least 12 months).

Even after we no longer qualify as an emerging growth company, we may still qualify as a smaller reporting company, which would allow us to take advantage of many of the same exemptions from disclosure requirements including exemption from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may 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.

Our internal control over financial reporting does not currently meet the standards required by Section 404 of the Sarbanes-Oxley Act, and we have previously identified a material weakness, 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. Commencing with our Annual Report on Form 10-K for the fiscal year ending December 31, 2016, our management will be required to report on the effectiveness of our internal control over financial reporting. Additionally, under the 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 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.

In connection with the implementation of the necessary procedures and practices related to internal control over financial reporting, we may identify deficiencies or material weaknesses that we may not be able to remediate in

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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. Failure to achieve and maintain an effective internal control environment could have a material adverse effect on our business, financial condition and results of operations and could limit our ability to report our financial results accurately and in a timely manner.

In the course of auditing our financial statements as of and for the year ended December 31, 2013, our independent registered public accounting firm identified a material weakness in our internal control over financial reporting relating to our failure to perform periodic reconciliations on various accounts. The material weakness resulted in adjusting entries to our financial statements and delays in producing such financial information to our independent registered public accounting firm. We remediated this material weakness in the year ended December 31, 2014 primarily by adding personnel to our accounting staff and implementing reconciliation policies and procedures, including effective review and oversight, to ensure the timely delivery and accuracy of financial information and minimize the risk of misstatement or misappropriation. These planned actions are subject to ongoing management review and the oversight of the audit committee of our board of directors. We cannot assure you that the measures we have taken to date, or any measures we may take in the future, will be sufficient to avoid potential future material weaknesses.

We will incur significant increased costs as a result of operating as a public company, our management has limited experience managing a public company, and our management will be required to devote substantial time to new compliance initiatives.

As a public company and particularly after we cease to be an emerging growth company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, as well as rules subsequently implemented by the SEC and The Nasdaq Stock Market LLC have imposed various requirements on public companies. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact (in ways we cannot currently anticipate) the manner in which we operate our business. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain our current levels of such insurance coverage.

As a publicly traded company, we have incurred and will incur legal, accounting and other expenses associated with the SEC reporting requirements applicable to a company whose securities are registered under the Exchange Act, as well as corporate governance requirements, including those under the Sarbanes-Oxley Act, the Dodd-Frank Act and other rules implemented by the SEC and The Nasdaq Stock Market LLC. In addition, we expect that we will need to hire additional personnel in our finance department to help us comply with the various requirements applicable to public companies. The expenses incurred by public companies generally to meet SEC reporting, finance and accounting and corporate governance requirements have been increasing in recent years as a result of changes in rules and regulations and the adoption of new rules and regulations applicable to public companies.

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If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares

Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the as adjusted book value per share of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of $ per share, based on the sale of shares of common stock at an assumed public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Furthermore, if the underwriters exercise their over-allotment option, or outstanding options or warrants are exercised, you could experience further dilution. For more information on the dilution you may suffer as a result of investing in this offering, see the section of this prospectus entitled Dilution . This dilution is due to the substantially lower price paid by our investors who purchased shares prior to this offering as compared to the price offered to the public in this offering. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation.

If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about our business, our stock price and trading volume could decline.

The trading market for our common stock depends, in part, on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. In addition, if our operating results fail to meet the forecast of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause our stock price and trading volume to decline.

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

Sales of a substantial number of shares of our common stock by our existing stockholders in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our common stock.

Ligand is subject to a lock-up agreement with the underwriters of our initial public offering that restricts its ability to transfer shares of our common stock until January 23, 2016, except with respect to the Ligand Note and the shares issuable to Ligand under the Ligand Note. Beginning on October 25, 2015, shares held by our executive officers, directors, 5% or greater stockholders (other than Ligand) and their affiliates and family members were released from lock-up agreements with the underwriters of our initial public offering and, subject to certain limitations, including sales volume limitations, became eligible for sale in the public market. In addition, each of our directors and officers are expected to enter into lock-up agreements with the underwriters of this offering, which will expire 90 days from the date of this prospectus, following which the shares held by our directors and officers will be eligible for sale, subject to certain limitations. Sales of stock by these stockholders, or the perception that these sales may occur, could have a material adverse effect on the trading price of our common stock.

Certain holders of our securities are entitled to rights with respect to the registration of their shares under the Securities Act, subject to the lock-up arrangement described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act. Any sales of

securities by these stockholders, or the perception that these sales may occur, could have a material adverse effect on the trading price of our common stock.

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We are at risk of securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biopharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management s attention and resources, which could harm our business, financial condition and results of operations.

We will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

We currently intend to use the net proceeds of this offering to fund clinical trials and the research and development of our drug candidates and for other working capital and general corporate purposes, as further described in the section of this prospectus entitled Use of Proceeds . We will have broad discretion in the application of the net proceeds in the category of other working capital and general corporate purposes and investors will be relying on the judgment of our management regarding the application of the proceeds of this offering.

The amount and timing of our actual expenditures will depend upon numerous factors, including the results of our research and development efforts, the timing and success of preclinical studies, our ongoing clinical trials or clinical trials we may commence in the future and the timing of regulatory submissions. The costs and timing of development activities, particularly conducting clinical trials and preclinical studies, are highly uncertain, subject to substantial risks and can often change. Depending on the outcome of these activities and other unforeseen events, our plans and priorities may change and we may apply the net proceeds of this offering in different proportions than we currently anticipate.

The failure by our management to apply these funds effectively could harm our business, financial condition and results of operations. Pending their use, we may invest the net proceeds from this offering in short-term, interest-bearing, investment-grade securities or certificates of deposit. These investments may not yield a favorable return to our stockholders.

Our ability to use our net operating loss carryforwards may be subject to certain limitations.

At December 31, 2014, we had net operating loss carryforwards of approximately $1,402,000 for both federal and state tax purposes, which begin to expire in 2032. Our ability to utilize our federal net operating loss carryforwards may be limited under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code. In the event of an ownership change, Section 382 imposes an annual limitation on the amount of post-ownership change taxable income that may be offset with pre-ownership change net operating losses of the loss corporation experiencing the ownership change. An ownership change is defined by Section 382 as a cumulative change in ownership of our company of more than 50% within a three-year period. It is expected that our initial public offering in May 2015 resulted in an ownership change of us. In addition, current or future changes in our stock ownership may trigger an ownership change, some of which may be outside our control. Accordingly, our ability to utilize our net operating loss carryforwards to offset federal taxable income, if any, will likely be limited by Section 382, which could potentially result in increased future tax liability to us.

We may never pay dividends on our common stock so any returns would be limited to the appreciation of our stock.

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

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Provisions in our amended and restated certificate of incorporation and bylaws, as well as provisions of Delaware law, could make it more difficult or expensive for a third party to acquire us or change our board of directors or current management.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management. These provisions include:

- authorizing the issuance of blank check preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- limiting the removal of directors by the stockholders;
- creating a classified board of directors;
- providing that no stockholder is permitted to cumulate votes at any election of directors;
- allowing the authorized number of our directors to be changed only by resolution of our board of directors;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of our stockholders;
- requiring the approval of the holders of at least 66 2/3% of the votes that all our stockholders would be entitled to cast to amend or repeal specified provisions of our charter documents;
- eliminating the ability of stockholders to call a special meeting of stockholders; and
- establishing advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon at stockholder meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, we are subject to Section 203 of the General Corporation Law of the State of Delaware, or the DGCL, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with an interested stockholder for a period of three years following the date on which the stockholder became an interested stockholder, unless such transactions are approved in advance by our board of directors or ratified by our board of directors and certain of our stockholders. This provision could have the effect of delaying or preventing a change in control, whether or not it is desired by or

beneficial to our stockholders. Further, other provisions of Delaware law may also discourage, delay or prevent someone from acquiring us or merging with us.

Our amended and restated bylaws designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders ability to obtain a favorable judicial forum for disputes with us or our directors, officers or other employees.

Our amended and restated bylaws provide that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee to us or our stockholders, (3) any action asserting a claim against us or our directors, officers or employees arising pursuant to any provision of our amended and restated bylaws, our

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amended and restated certificate of incorporation or the DGCL, (4) any action asserting a claim against us or our directors, officers or employees that is governed by the internal affairs doctrine, or (5) any action to interpret, apply, enforce or determine the validity of our amended and restated bylaws or our amended and restated certificate of incorporation. Any person purchasing or otherwise acquiring any interest in any shares of our capital stock shall be deemed to have notice of and to have consented to this provision of our amended and restated bylaws. This choice-of-forum provision may limit our stockholders ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits. Alternatively, if a court were to find this provision of our amended and restated bylaws inapplicable or unenforceable with respect to one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could materially and adversely affect our business, financial condition and results of operations.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as may, will, should, expects, plans, anticipates, could, intends, target, projects, contemplates, believes, potential or continue or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- risks and uncertainties associated with our research and development activities, including our clinical trials and preclinical studies;
- the timing or likelihood of regulatory filing and approvals or of alternative regulatory pathways for our drug candidates;
- the potential market opportunities for commercializing our drug candidates;
- our expectations regarding the potential market size and the size of the patient populations for our drug candidates, if approved for commercial use, and our ability to serve such markets;
- estimates of our expenses, future revenue, capital requirements and our needs for additional financing;
- our ability to develop, acquire and advance drug candidates into, and successfully complete, clinical trials and preclinical studies;
- the implementation of our business model and strategic plans for our business and drug candidates;
- the initiation, cost, timing, progress and results of future preclinical studies and clinical trials, and our research and development programs;
- the terms of future licensing arrangements, and whether we can enter into such arrangements at all;
- timing and receipt or payments of licensing and milestone revenues, if any;

the scope of protection we are able to establish and maintain for intellectual property rights covering our drug candidates and our ability to operate our business without infringing the intellectual property rights of others;

regulatory developments in the United States and foreign countries;

the performance of our third party suppliers and manufacturers;

our ability to maintain and establish collaborations or obtain additional funding;

the success of competing therapies that are currently or may become available;

our expectations regarding the time during which we will be an emerging growth company under the JOBS Act;

our use of proceeds from this offering;

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our ability to continue as a going concern;

our financial performance; and

developments and projections relating to our competitors and our industry.

We caution you that the forward-looking statements highlighted above do not encompass all of the forward-looking statements made in this prospectus.

We have based the forward-looking statements contained in this prospectus primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in the section of this prospectus entitled Risk Factors and elsewhere in this prospectus. Moreover, we operate in a very competitive and challenging environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this prospectus relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this prospectus to reflect events or circumstances after the date of this prospectus or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, other strategic transactions or investments we may make.

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INDUSTRY AND MARKET DATA

This prospectus contains statistical data, estimates, forecasts, projections and other information concerning our industry, our business and the markets for certain diseases, including data regarding the estimated size of those markets and the incidence and prevalence of certain medical conditions. Information that is based on statistical data, estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, medical and general publications, government data, studies and similar data prepared by market research firms and other third parties. These third parties may, in the future, alter the manner in which they conduct surveys and studies regarding the markets in which we operate our business. The market and other estimates included in this prospectus, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties, and are subject to change based on various factors, including those discussed in the section of this prospectus entitled Risk Factors and elsewhere in this prospectus.

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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 $ million (or $ million if the underwriters exercise their option to purchase additional shares of our common stock in this offering in full), assuming a public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase or decrease in the assumed public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, would increase or decrease the net proceeds from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We are undertaking this offering in order to increase our liquidity. We intend to use the net proceeds from this offering as follows:

- approximately $ million to fund the continued clinical development of VK5211, including a randomized, double-blind, placebo-controlled, multicenter Phase 2 proof-of-concept clinical trial in patients with hip fracture;
- approximately $ million to fund the continued clinical development of VK2809, including a randomized, double-blind, placebo-controlled, multicenter Phase 2 proof-of-concept clinical trial in patients with hypercholesterolemia and fatty liver disease;
- approximately $ million to fund the continued development of our thyroid beta program in X-ALD;
- approximately $ million to fund the continued development of our diabetes program, VK0612; and
- the remainder for working capital and other general corporate purposes.

Although it is difficult to predict our liquidity requirements, based upon our current operating plan, we believe we have sufficient cash to meet our projected operating requirements for at least the next 12 months, and to reach the following milestones, based on their estimated timelines, with respect to our current drug programs: complete the planned clinical trials for VK5211 and VK2809; and conduct non-clinical pharmacology studies of VK0214 in animal models of X-ALD. Therefore, even with the expected net proceeds from this offering, we do not expect to have sufficient cash to complete the clinical development of any of our drug candidates or, if applicable, to prepare for commercializing any drug candidate that is approved.

Our expected use of the net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus, we cannot predict with complete certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the actual amounts that we will spend on the uses set forth above. The costs and timing of development activities, particularly conducting clinical

trials and preclinical studies, are highly uncertain, subject to substantial risks and can often change. Due to the many variables inherent to the development of our drug candidates, we cannot currently predict the stage of development we expect the net proceeds of this offering to achieve for our clinical trials, preclinical studies and drug candidates.

Our management will have broad discretion in the application of the net proceeds in the category of other working capital and general corporate purposes. For example, if we identify opportunities that we believe are in

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the best interests of our stockholders, we may use a portion of the net proceeds from this offering to acquire, invest in or license complementary products, technologies or businesses, although we have no current understandings, agreements or commitments to do so. In addition, the amounts and timing of our actual expenditures will depend upon numerous factors, including the results of our research and development efforts, the timing and success of preclinical studies, our ongoing clinical trials or clinical trials we may commence in the future and the timing of regulatory submissions. Depending on the outcome of these activities and other unforeseen events, our plans and priorities may change and we may apply the net proceeds of this offering toward different uses and in different proportions than we currently anticipate.

Pending use of the proceeds from this offering 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.

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PRICE RANGE OF OUR COMMON STOCK

Our common stock has been listed on the Nasdaq Capital Market under the symbol VKTX since April 29, 2015. Prior to that date, there was no public trading market for our common stock. The following table sets forth for the periods indicated the high and low sales prices per share of our common stock as reported on the Nasdaq Capital Market:

	High	Low
Year ending December 31, 2015		
Second Quarter (from April 29, 2015)	$ 10.23	$ 6.69
Third Quarter	$ 7.75	$ 5.00
Fourth Quarter (through November 20, 2015)	$ 7.14	$ 4.34

On November 20, 2015, the last reported sales price of our common stock on the Nasdaq Capital Market was $4.44 per share. As of September 30, 2015, we had approximately 18 holders of record of our common stock. The actual number of stockholders is greater than this number of holders of record and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

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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. Any future determination to pay dividends will be made at the discretion of our board of directors or any authorized committee thereof after considering our financial condition, results of operations, capital requirements, business prospects and other factors our board of directors or such committee deems relevant, and will be subject to the restrictions contained in our current or future financing instruments.

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CAPITALIZATION

The following table sets forth our cash and capitalization as of September 30, 2015:

- on an actual basis;
- on an as adjusted basis to give effect to our issuance and sale of shares of common stock at an assumed public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The information in this table should be read in conjunction with the sections of this prospectus entitled Use of Proceeds, Selected Financial Data and Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and related notes thereto included elsewhere in this prospectus.

	As of September 30, 2015	
	Actual	As Adjusted
	(Unaudited)	
Cash and cash equivalents	$ 2,140,115	
Accrued interest	152,361	
Convertible notes payable, current	1,911,024	
Debt conversion feature liability, current	2,154,062	
Stockholders equity (deficit):		
Common stock, $0.00001 par value: 300,000,000 shares authorized at September 30, 2015; 9,783,312 shares issued and outstanding at September 30, 2015 actual; shares issued and outstanding, as adjusted at September 30, 2015	98	
Additional paid-in capital	53,729,783	
Accumulated other comprehensive loss	(4,848)	
Accumulated deficit	(40,454,482)	
Total stockholders equity	13,270,551	
Total capitalization	$ 17,487,998	

The number of shares of common stock that will be outstanding after this offering is based on 9,783,312 shares of common stock outstanding as of September 30, 2015, and excludes the following:

410,144 shares of common stock issuable upon the exercise of options outstanding as of September 30, 2015 with a weighted-average exercise price of $8.41 per share;

84,000 shares of common stock reserved for future issuance in connection with service-based restricted stock units outstanding as of September 30, 2015 with a weighted-average grant date fair value of $8.22 per share;

602,379 shares of common stock reserved as of September 30, 2015 for future issuance under our 2014 Equity Incentive Plan, which contains provisions that may increase its share reserve each year, as more fully described in the section of this prospectus entitled Executive Compensation 2014 Equity Incentive Plan ;

458,049 shares of common stock reserved as of September 30, 2015 for future issuance under our 2014 Employee Stock Purchase Plan, which contains provisions that may increase its share reserve each year, as more fully described in the section of this prospectus entitled Executive Compensation 2014 Employee Stock Purchase Plan ;

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82,500 shares of common stock issuable upon the exercise of an outstanding warrant as of September 30, 2015, with an exercise price of $10.00 per share; and

663,090 shares of our common stock issuable upon conversion of the secured convertible promissory note previously issued by us to Ligand, based on $2,652,361 of principal and interest outstanding under the note as of September 30, 2015.

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DILUTION

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

As of September 30, 2015, we had net tangible book value of approximately $13.3 million, or $1.36 per share. Net tangible book value per share represents the amount of total tangible assets less total liabilities divided by the number of shares of our common stock outstanding.

After giving effect to the sale of shares of common stock at an assumed public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2015 would have been approximately $ million, or approximately $ per share. This amount represents an immediate increase in as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately $ per share to new investors purchasing shares of common stock in this offering.

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

Assumed public offering price per share		$
Net tangible book value per share as of September 30, 2015	$ 1.36	
Increase in as adjusted net tangible book value per share attributable to this offering		
As adjusted net tangible book value per share after this offering		
Dilution per share to new investors participating in this offering		$

Each $1.00 increase or decrease in the assumed public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, would increase or decrease the dilution per common share to new investors purchasing shares of common stock in this offering by $ per share, assuming that the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. An increase or decrease of 1.0 million in the number of shares offered by us would increase or decrease the dilution to new investors by $ and $ per share, respectively, assuming a public offering price of $ per share of common stock, the last reported sale price of our common stock on the Nasdaq Capital Market on , 2015, after deducting 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 this offering in full, as adjusted net tangible book value per share after this offering would increase to approximately $ per share, and there would be immediate dilution of approximately $ per share to new investors.

To the extent that outstanding options with an exercise price per share that is less than the as adjusted net tangible book value per share, before giving effect to the issuance and sale of shares of common stock in this offering, are exercised, new investors will experience further dilution. If all of our outstanding options described in this prospectus were exercised, and all of our outstanding restricted stock units described in this prospectus vested in accordance with their terms, our net tangible book value as of September 30, 2015, before giving effect to the issuance and sale of shares of common stock in this offering, would have been approximately $ million, or approximately $ per

share, and our as adjusted net tangible book value as of September 30, 2015 would have been approximately $ million, or approximately $ per share, causing dilution to new investors of approximately $ per share.

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SELECTED FINANCIAL DATA

The following table sets forth our selected financial data as of the dates and for the periods indicated. We have derived the selected statement of operations data for the years ended December 31, 2013 and 2014 from our audited financial statements included elsewhere in this prospectus. The selected statements of operations data for the nine months ended September 30, 2014 and 2015 and the selected balance sheet data as of September 30, 2015 have been derived from our unaudited consolidated financial statements included elsewhere in this prospectus. The unaudited financial data include, in the opinion of management, all adjustments, consisting of normal recurring adjustments, that are necessary for a fair statement of our financial position and results of operations for these periods.

The historical results presented below are not necessarily indicative of the results to be expected for any future period. The following summaries of our financial data for the periods presented should be read in conjunction with the sections of this prospectus entitled Risk Factors, Capitalization, Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and the related notes included elsewhere in this prospectus.

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014 (Unaudited)	2015 (Unaudited)
Revenues	$	$	$	$
Operating expenses:				
Research and development	11,613	22,223,073	22,080,286	3,747,428
General and administrative	89,463	1,244,910	1,034,132	3,628,747
Total operating expenses	101,076	23,467,983	23,114,418	7,376,175
Loss from operations	(101,076)	(23,467,983)	(23,114,418)	(7,376,175)
Other income (expense):				
Change in fair value of accrued license fees		1,821,713	(264,112)	(9,381,848)
Change in fair value of debt conversion feature liability	(20,622)	390,763	405,782	(826,637)
Amortization of debt discount	(18,392)	(557,961)	(263,651)	(652,986)
Interest expense, net	(6,157)	(70,715)	(37,131)	(75,379)
Total other income (expense)	(45,171)	1,583,800	(159,112)	(10,936,850)
Net loss	(146,247)	(21,884,183)	(23,273,530)	(18,313,025)
Other comprehensive loss, net of tax:				
Unrealized loss on securities				(4,848)
Comprehensive loss	$ (146,247)	$ (21,884,183)	$ (23,273,530)	$ (18,317,873)
Basic and diluted net loss per share	$ (0.07)	$ (5.23)	$ (5.84)	$ (2.69)
	2,043,295	4,187,415	3,982,147	6,802,169

Weighted-average shares used to compute basic and diluted net loss per share	

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	December 31,		September 30,
	2013	2014	2015 (Unaudited)
Balance Sheet Data			
Cash	179,619	755,857	2,140,115
Working capital (deficit)	52,127	(21,743,398)	13,209,700
Total assets	180,394	3,043,134	19,012,251
Accrued license fees		19,865,863	
Accrued interest	6,507	77,222	152,361
Convertible notes payable, current	46,894	304,274	1,911,024
Convertible notes payable, non-current	231,851	1,264,114	
Debt conversion feature liability, current		58,742	2,154,062
Debt conversion feature liability, non-current	71,655	1,390,469	
Accumulated deficit	(257,274)	(22,141,457)	(40,454,482)
Total stockholders equity (deficit)	(250,604)	(22,128,531)	13,270,551

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the section of this prospectus entitled Selected Financial Data and our financial statements and related notes thereto included elsewhere in this prospectus. In addition to historical information, this discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from these forward-looking statements as a result of certain factors. We discuss factors that we believe could cause or contribute to these differences below and elsewhere in this prospectus, including those set forth in the sections of this prospectus entitled Risk Factors and Special Note Regarding Forward-Looking Statements .

Overview

We are a clinical-stage biopharmaceutical company focused on the development of novel, first-in-class or best-in-class therapies for metabolic and endocrine disorders. We have exclusive worldwide rights to a portfolio of five drug candidates in clinical trials or preclinical studies, which are based on small molecules licensed from Ligand. Our lead clinical program is VK5211, an orally available drug candidate, currently in a Phase 2 clinical trial for acute rehabilitation following non-elective hip fracture surgery. Hip fracture is a common injury among persons aged 60 and older. The acute recovery period post-injury is characterized by significant and rapid declines in bone mineral density, or BMD, and lean body mass, or LBM, which contributes to substantial morbidity and mortality in these patients. VK5211 is a non-steroidal selective androgen receptor modulator, or SARM. A SARM is designed to selectively interact with a subset of receptors that have a normal physiologic role of interacting with naturally-occurring hormones called androgens. Broad activation of androgen receptors with drugs, such as exogenous testosterone, can stimulate muscle growth and improve BMD, but often results in unwanted side effects such as prostate growth, hair growth and acne. VK5211 is expected to selectively produce the therapeutic benefits of testosterone in muscle and bone tissue, potentially accelerating rehabilitation and improving patient outcomes. VK5211 is also expected to have improved safety, tolerability and patient acceptance relative to testosterone. We commenced the Phase 2 study of VK5211 in October 2015 and expect to complete the trial in the second half of 2016.

Our second clinical program is VK2809, an orally available, tissue and receptor-subtype selective agonist of the thyroid beta receptor that is entering Phase 2 development for the treatment of patients with hypercholesterolemia and fatty liver disease. VK2809 belongs to a family of novel prodrugs which are cleaved *in vivo* to release potent thyromimetics. Selective activation of the TRß receptor in liver tissue is believed to favorably affect cholesterol and lipoprotein levels via multiple mechanisms, including increasing the expression of low-density lipoprotein receptors and increasing mitochondrial fatty acid oxidation. We expect to commence the Phase 2 study of VK2809 in the fourth quarter of 2015 and to complete the trial in the second half of 2016.

We are also developing VK0214 for X-linked adrenoleukodystrophy, or X-ALD, a rare X-linked, inherited neurological disorder characterized by a breakdown in the protective barriers surrounding brain and nerve cells. The disease, for which there is no approved treatment, is caused by mutations in a peroxisomal transporter of very long chain fatty acids, or VLCFA, known as ABCD1. As a result, transporter function is impaired and patients are unable to efficiently metabolize VLCFA. VK0214 is a novel selective thyroid hormone receptor beta, or TRß, agonist. The thyroid beta receptor is known to regulate expression of an alternative VLCFA transporter, known as ABCD2. Various preclinical models have demonstrated that increased expression of ABCD2 can lead to normalization of VLCFA metabolism. Preliminary *in vitro* data suggest that VK0214 stimulates ABCD2 expression. We plan to commence further studies in animals during the fourth quarter of 2015. Pending completion of this work, we expect to commence work directed toward filing an Investigational New Drug Application, or IND, in 2016.

We were incorporated under the laws of the State of Delaware on September 24, 2012. Since our incorporation, we have devoted substantially all of our efforts to raising capital, building infrastructure and obtaining the

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worldwide rights to certain technology, including VK5211, VK2809 and VK0214, pursuant to an exclusive license agreement with Ligand Pharmaceuticals Incorporated, or Ligand. The terms of this license agreement are detailed in the Master License Agreement, or the Master License Agreement, with Ligand, which we entered into on May 21, 2014 and amended on each of September 6, 2014 and April 8, 2015. A summary of the Master License Agreement, as amended, can be found in the section of this prospectus entitled Business-Agreements with Ligand Master License Agreement .

On May 4, 2015, we completed our initial public offering of our common stock, or the IPO, pursuant to a Registration Statement on Form S-1 that was declared effective on April 28, 2015. In the IPO, we sold 3,000,000 shares of our common stock at an initial public offering price of $8.00 per share. The underwriters for the IPO had 30 days to exercise an over-allotment option to purchase up to an additional 450,000 shares at the initial public offering price, less the underwriting discount. Upon the closing of the IPO, on May 4, 2015, we raised a total of $22,080,500 in net proceeds after deducting underwriting discounts, commissions and a non-accountable expense allowance in an aggregate amount of $1,919,500, but before deducting other offering costs and expenses.

On May 26, 2015, the underwriters of the IPO exercised their full over-allotment option to purchase an additional 450,000 shares of our common stock. On May 28, 2015, we sold the 450,000 shares to the underwriters pursuant to the over-allotment option and received additional net proceeds of $3,312,000, after deducting underwriting discounts and commissions of $288,000, but before deducting other offering costs and expenses.

Although it is difficult to predict our liquidity requirements, based upon our current operating plan, and the proceeds received from the IPO, we believe we will have sufficient cash to meet our projected operating requirements for at least the next 12 months.

As of September 30, 2015, we had an accumulated deficit of $40,454,482. These losses have resulted principally from research and development costs incurred in connection with acquiring the exclusive worldwide rights to the portfolio of five drug candidates discussed above and the related non-cash interest expense recorded for increases in the deemed fair market value for the license fees payable to Ligand, research and development expenses related to the clinical development of VK5211, VK2809 and VK0214, consulting fees and general and administrative expenses. We anticipate that we will continue to incur net losses for the foreseeable future as we continue the development of our clinical drug candidates and preclinical programs and incur additional costs associated with being a public company.

Financial Operations Overview

Revenues

To date, we have not generated any revenue. We do not expect to receive any revenue from any drug candidates that we develop unless and until we obtain regulatory approval for, and commercialize, such drug candidates or enter into collaborative agreements with third parties.

Research and Development Expenses

We had limited operating expenses related to research and development activities through May 2014. In May 2014, we acquired certain rights to a number of research and development programs from Ligand and charged $21,687,576 to research and development expense during the year ended December 31, 2014 as a cost of acquiring these assets. We expect that our ongoing research and development expenses will consist of costs incurred for the development of our drug candidates, and will include:

employee and consultant-related expenses, which will include salaries, benefits and stock-based compensation, and certain consultant fees and travel expenses;

- expenses incurred under agreements with investigative sites and contract research organizations, or CROs, which will conduct a substantial portion of our research and development activities on our behalf;

- employee and consultant-related expenses, which will include salaries, benefits and stock-based compensation, and certain consultant fees and travel expenses;

- payments to third-party manufacturers, which will produce our active pharmaceutical ingredients and finished products;

- license fees paid to third parties for use of their intellectual property; and

- facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities and equipment, depreciation of leasehold improvements and equipment and laboratory and other supplies.

We expense all research and development costs as incurred.

The process of conducting the necessary clinical research to obtain regulatory approval is costly and time consuming and the successful development of our drug candidates is highly uncertain. Our future research and development expenses will depend on the clinical success of each of our drug candidates, as well as ongoing assessments of the commercial potential of such drug candidates. In addition, we cannot forecast with any degree of certainty which drug candidates may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements. We expect to incur increased research and development expenses as we continue and commence our Phase 2 clinical trials for VK5211 and VK2809, respectively, and seek to advance our additional programs.

General and Administrative Expenses

To date, general and administrative expenses have consisted primarily of salaries and related benefits paid to our employees in executive, operational and finance functions, including stock compensation and fees paid to certain consultants to help commence and continue our operations. We expect that our general and administrative expenses will increase in the future in order to support our research and development activities, including increased salaries and other related costs, stock-based compensation and consulting fees for executive, finance, accounting and business development functions. Other significant costs are expected to include legal fees relating to patent and corporate matters, facility costs not otherwise included in research and development expenses, and fees for accounting and other consulting services. We also expect general and administrative expenses to increase as we are now a public company, including expenses related to compliance with the rules and regulations of the SEC and those of any national securities exchange on which our securities are traded, additional insurance expenses, investor relations activities and other administration and professional services.

Other Expenses

Other expenses include the change in fair value of the debt conversion feature liability contained in our outstanding convertible promissory notes issued from September 2012 through June 2013, or the Convertible Notes, the Secured Convertible Promissory Note issued to Ligand on May 21, 2014, or the Ligand Note, and the change in fair value at

each reporting period of the accrued license fees set up on May 21, 2014, which accounts for non-cash other expense associated with the increase in fair value of the debt conversion feature liability and accrued license fees and interest expense, which consists primarily of interest accrued on the Convertible Notes and the Ligand Note, and non-cash interest related to the amortization of debt discount costs associated with the Convertible Notes and the Ligand Note. With the effectiveness of the IPO in May 2015, the Convertible Notes and related debt conversion feature liability and the accrued license fees were converted to equity and therefore changes in their fair values will no longer be recorded as expenses.

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JOBS Act

We are an emerging growth company within the meaning of the rules under the Securities Act of 1933, as amended, or the Securities Act, and we will utilize certain exemptions from various reporting requirements that are applicable to public companies that are not emerging growth companies. For example, as an emerging growth company, we will not be required to provide an auditor s attestation report on our internal control over financial reporting in future annual reports on Form 10-K as otherwise required by Section 404(b) of the Sarbanes-Oxley Act of 2002, as amended. In addition, Section 107 of the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, provides that an emerging growth company can utilize the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected to opt out of the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the JOBS Act. 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.

Critical Accounting Policies 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. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate our estimates and judgments related to the fair value of the debt conversion liability, preclinical, nonclinical and clinical development costs and drug manufacturing costs. 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 1 to our financial statements included elsewhere in this prospectus, we believe that the following accounting policies will be critical to understanding our historical and future performance, as these policies relate to the significant areas involving management s judgments and estimates in the preparation of our financial statements.

Revenue Recognition

We have not recorded any revenues since our inception. However, in the future we may enter into collaborative research and licensing agreements, under which we could be eligible for payments made in the form of upfront license fees, research funding, cost reimbursement, contingent event-based payments and royalties.

Revenue from upfront, nonrefundable license fees is recognized over the period that any related services are to be provided by us. Amounts received for research funding are recognized as revenue as the research services that are the subject of such funding are performed. Revenue derived from reimbursement of research and development costs in transactions where we act as a principal are recorded as revenue for the gross amount of the reimbursement, and the costs associated with these reimbursements are reflected as a component of research and development expense in our statements of operations.

Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 605-28, *Revenue Recognition Milestone Method*, or ASC 605-28, established the milestone method as an acceptable method

of revenue recognition for certain contingent event-based payments under research and development arrangements. Under the milestone method, a payment that is contingent upon the achievement of a substantive

milestone is recognized in its entirety in the period in which the milestone is achieved. A milestone is an event (1) that can be achieved based in whole or in part on either our performance or on the occurrence of a specific outcome resulting from our performance, (2) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved, and (3) that would result in additional payments being due to us. The determination that a milestone is substantive is judgmental and is made at the inception of the arrangement. Milestones are considered substantive when the consideration earned from the achievement of the milestone (a) is commensurate with either our performance to achieve the milestone or the enhancement of value of the item delivered as a result of a specific outcome resulting from our performance to achieve the milestone, (b) relates solely to past performance, and (c) is reasonable relative to all deliverables and payment terms in the arrangement.

Other contingent event-based payments received for which payment is either contingent solely upon the passage of time or the results of a collaborative partner s performance are not considered milestones under ASC 605-28. In accordance with ASC Topic 605-25, *Revenue Recognition Multiple-Element Arrangements* , or ASC 605-25, such payments will be recognized as revenue when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, price is fixed or determinable and collectability is reasonably assured. Revenues recognized for royalty payments, if any, are based upon actual net sales of the licensed compounds, as provided by the collaboration arrangement, in the period the sales occur. Any amounts received prior to satisfying our revenue recognition criteria are recorded as deferred revenue on our balance sheets.

Research and Development

Our historical research and development expenses have primarily related to obtaining certain licensed compounds and related intellectual property rights from Ligand. In May 2014, we acquired certain rights to a number of research and development programs from Ligand. In doing so, we updated our policy on research and development to include the purchase of rights to intangible assets. In accordance with ASC Topic 730, *Research and Development* , intangible assets that are acquired and have an alternative future use, as defined, should be capitalized and reported as an intangible asset; however, the cost of acquired intangible assets that do not have alternative future uses should be reported as research and development expense as incurred. We note that intangible assets acquired that are in the preclinical or clinical stages of development when acquired, and not FDA approved, are deemed to have not satisfied the definition of having an alternative future use, as defined. Accordingly, assets acquired in the preclinical and clinical stages of development should be expensed as incurred in our statement of operations. We expect to begin certain clinical and preclinical efforts later this year.

All costs of research and development are expensed in the period incurred. Research and development costs primarily consist of fees paid to CROs and clinical trial sites, employee and consultant related expenses, which include salaries, benefits and stock-based compensation for research and development personnel; external research and development expenses incurred pursuant to agreements with third-party manufacturing organizations; license fees paid to third parties for use of their intellectual property; facilities costs; travel costs; dues and subscriptions; depreciation and materials used in preclinical studies, clinical trials and research and development.

We estimate our preclinical study and clinical trial expenses based on the services we received pursuant to contracts with research institutions and CROs that conduct and manage preclinical studies and clinical trials on our behalf. Clinical trial-related contracts vary significantly in length, and may be for a fixed amount, based on milestones or deliverables, a variable amount based on actual costs incurred, capped at a certain limit, or for a combination of these elements. We accrue service fees based on work performed, which relies on estimates of total costs incurred based on milestones achieved, patient enrollment and other events. The majority of our service providers invoice us in arrears, and to the extent that amounts invoiced differ from our estimates of

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expenses incurred, we accrue for additional costs. The financial terms of these agreements vary from contract to contract and may result in uneven expenses and payment flows. Preclinical study and clinical trial expenses include:

- fees paid to CROs, laboratories and consultants in connection with preclinical studies;
- fees paid to CROs, clinical trial sites, investigators and consultants in connection with clinical trials; and
- fees paid to contract manufacturers and service providers in connection with the production, testing and packaging of active pharmaceutical ingredients and drug materials for preclinical studies and clinical trials.

Payments under some of these agreements depend on factors such as the milestones accomplished, including enrollment of certain numbers of patients, site initiation and the completion of clinical trial milestones. To date, we have not experienced any events requiring us to make material adjustments to our accruals for service fees. If we do not identify costs that we have begun to incur 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 which could materially affect our results of operations. Adjustments to our accruals are recorded as changes in estimates become evident. Furthermore, based on amounts invoiced to us by our service providers, we may also record payments made to those providers as prepaid expenses that will be recognized as expense in future periods as services are rendered.

Patent Costs

Costs related to filing and pursuing patent applications are expensed as incurred to general and administrative expense, as recoverability of such expenditures is uncertain.

Stock-Based Compensation

The Company generally uses the straight-line or graded vesting method to allocate compensation cost to reporting periods over each optionee s requisite service period, which is generally the vesting period, and estimates the fair value of stock-based awards or restricted stock units to employees and directors using the Black-Scholes option-valuation model. For options with a graded vesting schedule, the Company uses the graded vesting schedule to allocate compensation cost to reporting periods. The Black-Scholes model requires the input of subjective assumptions, including volatility, the expected term and the fair value of the underlying common stock on the date of grant, among other inputs. Stock options granted to non-employees are accounted for using the fair value approach. Stock options granted to non-employees are subject to periodic revaluation over their vesting terms. For restricted stock and restricted stock unit awards, the Company generally uses the straight-line or graded vesting method to allocate compensation cost to reporting periods over the holder s requisite service period, which is generally the vesting period, and uses the fair value at grant date to value the awards.

Prior to the IPO, the Company accounted for stock-based compensation by measuring and recognizing compensation expense for all stock-based payments made to employees and directors based on estimated award date fair values, which estimates were highly complex and subjective in nature. The Company used the straight-line or graded vesting method to allocate compensation cost to reporting periods over each restricted award s requisite service period, which was generally the vesting period, and estimated the fair value of restricted stock-based awards to employees and consultants using a Monte Carlo market approach simulation method and performed an allocation of value to common

stock based on the estimated time to a liquidity event. In addition, the Company accounted for performance-based restricted stock awards to employees by determining the fair value of the restricted stock award at the date of issuance by using the Probability Weighted Expected Return Method (PWERM) and then assessing at each balance sheet date the probability of the performance criteria being met. If the probability of achieving the criteria was deemed less-than-probable, then no expense was recorded. At the point where the criteria are deemed probable of being met, the Company will begin recording stock-based compensation with a cumulative catch-up expense in the period first recognized and then on a straight-line basis over the remaining period for which the performance criteria are expected to be completed.

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Income Taxes

The Company accounts for its income taxes using the liability method whereby deferred tax assets and liabilities are determined based on temporary differences between the basis used for financial reporting and income tax reporting purposes. Deferred income taxes are provided based on the enacted tax rates in effect at the time such temporary differences are expected to reverse. A valuation allowance is provided for deferred tax assets if it is more likely than not that the Company will not realize those tax assets through future operations.

Income tax positions must meet a more-likely-than-not recognition threshold to be recognized. Income tax positions that previously failed to meet the more-likely-than-not threshold are recognized in the first subsequent financial reporting period in which that threshold is met. Previously recognized tax positions that no longer meet the more-likely-than-not threshold are derecognized in the first subsequent financial reporting period in which that threshold is no longer met.

Net Loss per Common Share

Basic net loss per share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method. For purposes of this calculation, the Company currently does not have any deemed common share equivalents; therefore, its basic and diluted net loss per share calculations are the same.

The following table presents the computation of basic and diluted net loss per common share:

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014 (Unaudited)	2015 (Unaudited)
Historical net loss per share				
Numerator				
Net loss attributable to common stockholders	$ (146,247)	$ (21,884,183)	$ (23,273,530)	$ (18,313,025)
Denominator				
Weighted-average common shares outstanding	5,020,685	5,860,274	5,813,187	8,120,639
Less: Weighted-average shares subject to repurchase	(2,977,390)	(1,672,859)	(1,831,040)	(1,318,470)
Denominator for basic and diluted net loss per share	2,043,295	4,187,415	3,982,147	6,802,169
Basic and diluted net loss per share	$ (0.07)	$ (5.23)	$ (5.84)	$ (2.69)

Potentially dilutive securities that are not included in the calculation of diluted net loss per share because their effect is anti-dilutive are as follows (in common equivalent shares):

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014	2015
			(Unaudited)	(Unaudited)
Common stock warrants				82,500
Restricted stock units				84,000
Common stock subject to repurchase	2,389,585	2,018,754	2,295,833	772,963
Common stock options				410,144
Shares issued upon conversion of debt				663,090
	2,389,585	2,018,754	2,295,833	2,012,697

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Segments

The Company operates in only one segment. Management uses cash flows as the primary measure to manage its business and does not segment its business for internal reporting or decision making.

Results of Operations

Comparison of the Years Ended December 31, 2013 and 2014

Research and Development Expenses

The following table summarizes our research and development expenses for the years ended December 31, 2013 and 2014.

	Year Ended December 31,		$ Change	% Change
	2013	2014		
Research and development expenses	$ 11,613	$ 22,223,073	$ 22,211,460	191,264%

During the year ended December 31, 2013, we incurred minimal research and development expenses, since we were in the process of negotiating to license certain technology from Ligand and had not engaged in any significant research or development during such time. During the year ended December 31, 2014, we expensed a $50,000 payment made to Ligand to extend our option to license certain technology from Ligand, prior to entering into the Master License Agreement, and then in May 2014, we entered into the Master License Agreement with Ligand. Our research and development expenses related primarily to our acquiring certain rights to a number of research and development programs from Ligand. Because these assets are still in the preclinical and clinical stages, and not FDA approved, we have deemed these assets not to have alternative future use, as defined, and therefore have expensed their estimated value in the amount of $21,169,616 to research and development expense in May 2014. The fair value of the assets was determined using a PWERM, which incorporated relevant events and expected exit scenarios for our company. The exit scenarios included an initial public offering, a merger or acquisition, which included an assumption of a Private Financing, and a scenario in which neither an initial public offering nor a merger or acquisition occurred. The enterprise value under each scenario was based primarily on the market approach and probability weighted expected exit values for our company under each scenario. Similar publicly traded companies and merger and acquisition transactions were utilized within the market approach and appropriate metrics were applied to our company, along with qualitative comparable assessments. We utilized a Monte Carlo simulation method to determine the weighted average per share value of the shares as of the acquisition date and in accordance with the Master License Agreement, utilized that per share value to calculate the estimated license fee liability and the related charge to research and development expense. In addition we incurred an incremental charge of $517,960 related to the revaluation of the license fee liability to Ligand, effective concurrently with the September 6, 2014 amendment to the Master License Agreement, and during the year ended December 31, 2014, we also expensed certain salaries and wages, including stock compensation for research and development employees in the amount of $207,767, consultant fees and certain other outside services of $155,880 and rent of $89,389.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for the years ended December 31, 2013 and 2014.

	Year Ended December 31,		$ Change	% Change
	2013	2014		
General and administrative expenses	$ 89,463	$ 1,244,910	$ 1,155,447	1,292%

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The increase in general and administrative expenses was primarily due to an increase in salaries and wages, including stock-based compensation expense of $431,085, during the year ended December 31, 2014 as compared to the year ended December 31, 2013. We began paying salaries to our founders during the second half of 2013; therefore, no salaries were paid by us during the first half of 2013. The increase also reflects $309,107 in accounting costs and audit fees incurred during the year ended December 31, 2014 as we prepared our books and records and completed our financial audits, as compared to no accounting costs and audit fees incurred during the year ended December 31, 2013. The increase also includes $199,674 in legal fees, $39,248 in consulting expenses, $26,295 in investor relations fees, $19,325 in insurance premiums expense and $90,148 in rent, primarily related to our new lease facility that we entered into in May 2014.

Other Income (Expense)

The following table summarizes our other income (expense) for the years ended December 31, 2013 and 2014.

	Year Ended December 31,		$ Change	% Change
	2013	2014		
Other income (expense)	$ (45,171)	$ 1,583,800	$ 1,628,971	3,606%

Other income (expense) decreased during the year ended December 31, 2014 primarily due to the set up in May 2014 of a license fee liability in accordance with the Master License Agreement entered into with Ligand on May 21, 2014, which requires the license fee liability to be marked to market at each reporting period. The decrease in fair value of the accrued license fees between May 21, 2014 and December 31, 2014 was determined to be $1,821,713, and therefore this amount was charged credited to other income (expense) during the year ended December 31, 2014. This decrease in the deemed fair value of the accrued license fees was due primarily to our change in program focus and the relevant new assets being of an earlier preclinical and clinical stage as compared to our prior focus on a Phase 2b clinical stage asset, as well as deemed additional market risk as of the end of fiscal year 2014. In addition, $532,433 related to the amortization of debt discount of the Note was charged to other income (expense) during the year ended December 31, 2014, and there was an increase of $58,611 in new interest expense related to the addition of amounts borrowed under the Note from May 2014 through December 2014. These were offset by a $377,850 decrease in the fair value of the debt conversion feature during the year ended December 31, 2014, primarily driven by the uncertainty regarding the marketplace in the latter part of 2014.

Comparison of the Nine Months Ended September 30, 2014 and 2015

Research and Development Expenses

The following table summarizes our research and development expenses for the nine months ended September 30, 2014 and 2015.

	Nine Months Ended September 30,		$ Change	% Change
	2014	2015		
	(Unaudited)	(Unaudited)		
Research and development expenses	$ 22,080,286	$ 3,747,428	$ (18,332,858)	(83.0)%

The decrease in research and development expenses during the nine months ended September 30, 2015 as compared to the same period in 2014 was primarily due to a decrease in license fees of $21,687,576. These fees were recorded during the nine months ended September 30, 2014 related to the estimated license fee liability payable to Ligand under the Master License Agreement. This decrease was offset by increases in research and development expenses of $1,061,764 related to clinical manufacturing for our drug candidates, $750,209 related to salaries and benefits, $662,584 related to stock compensation expense, $470,217 related to clinical trial

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activity for our VK5211 and VK2809 programs, and $321,041 related to services provided by certain third party consultants.

General and Administrative Expenses

The following table summarizes our general and administrative expenses for the nine months ended September 30, 2015 and 2014.

	Nine Months Ended September 30,		$ Change	% Change
	2014 (Unaudited)	2015 (Unaudited)		
General and administrative expenses	$ 1,034,132	$ 3,628,747	$ 2,594,615	250.9%

The increase in general and administrative expenses during the nine months ended September 30, 2015 as compared to the same period in 2014 was primarily due to increases in stock-based compensation expense of $1,406,066, increased expenses of $832,986 related to salaries and benefits, $207,186 in additional insurance premiums expense and an increase of $59,409 in consulting and other expenses associated with being a public company.

Other Income (Expense)

The following table summarizes our other income (expense) for the nine months ended September 30, 2015 and 2014.

	Nine Months Ended September 30,		$ Change	% Change
	2014 (Unaudited)	2015 (Unaudited)		
Other income (expense)	$ (159,112)	$ (10,936,850)	$ (10,777,738)	(6773.7)%

Other income (expense) increased during the nine months ended September 30, 2015 primarily due to the establishment in May 2014 of a license fee liability in accordance with the Master License Agreement, which required the license fee liability to be marked to market at each reporting period. The increase in other income (expense) for the nine months ended September 30, 2015 as compared to the nine months ended September 30, 2014 is primarily due to the recording of an increase in the value of the license fee liability of $9,381,848 during the nine months ended September 30, 2015, as compared to an increase in the value of the license fee liability of $264,112 during the nine months ended September 30, 2014. In addition, during the nine months ended September 30, 2015, we recorded additional amounts to other expenses related to the Ligand Note, including an incremental expense of $402,404 related to the amortization of the Ligand Note discount and an expense of $1,155,828 related to the incremental change in fair value of the Ligand Note s conversion feature.

Liquidity and Capital Resources

We have incurred losses and negative cash flows from operations and have not generated any revenues since our inception. Prior to the IPO, we did not have sufficient capital to fund our planned operations without additional financing. In May 2015, we completed the IPO (as discussed below) and believe we have sufficient cash to meet our projected operating requirements for at least the next 12 months.

Our primary use of cash is to fund operating expenses, which to date has consisted of the cost to obtain the license of intellectual property from Ligand and certain research and development and general and administrative expenses. Since we have not generated any revenues, we have incurred operating losses since our inception. Cash

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used to fund operating expenses is impacted by the timing of payment of these expenses, as reflected in the change in our outstanding accounts payable and accrued expenses.

On May 4, 2015, we completed the IPO. In the IPO, we sold 3,000,000 shares of our common stock at an initial public offering price of $8.00 per share. The underwriters for the IPO had 30 days to exercise an over-allotment option to purchase up to an additional 450,000 shares at the initial public offering price, less the underwriting discount. Upon the closing of the IPO, on May 4, 2015, we raised a total of $22,080,500 in net proceeds after deducting underwriting discounts and commissions of $1,919,500. Costs directly associated with the IPO were capitalized and recorded as deferred IPO costs prior to the closing of the IPO. These costs have been recorded as a reduction of the proceeds received in arriving at the amount to be recorded in additional paid-in capital.

On May 4, 2015, prior to the completion of the IPO, we repurchased an aggregate of 3,802,859 shares of our common stock from our stockholders at a price of $0.00001 per share for an aggregate purchase price of $38. Pursuant to the Master License Agreement, upon the closing of the IPO, on May 4, 2015, we issued an aggregate of 3,427,859 shares of our common stock to Ligand and Metabasis Therapeutics, Inc., a wholly-owned subsidiary of Ligand, or Metabasis.

On May 26, 2015, the underwriters of the IPO exercised their full over-allotment option to purchase an additional 450,000 shares of our common stock at $8.00 per share, less the underwriting discount. On May 28, 2015, we sold the 450,000 shares to the underwriters pursuant to the over-allotment option and received additional net proceeds of $3,312,000, after deducting underwriting discounts and commissions of $288,000, but before deducting other offering costs and expenses. Upon the closing of the over-allotment option, pursuant to the Master License Agreement, on May 28, 2015, we issued an additional aggregate of 228,105 shares of our common stock to Ligand and Metabasis.

The following table summarizes our cash flows for the periods indicated below:

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014	2015
			(Unaudited)	(Unaudited)
Cash used in operating activities	$ (78,235)	$ (1,591,423)	$ (1,150,457)	$ (5,432,104)
Cash used in investing activities	-	-	-	(15,426,042)
Cash provided by financing activities	257,854	2,167,661	1,765,253	22,242,404

Cash Used in Operating Activities

During the year ended December 31, 2013, cash used in operating activities was $78,235. Cash used in operating activities primarily reflected our net losses for the period, offset by non-cash charges such as amortization of discount charged to interest expense on Convertible Notes and an increase in change in fair value of debt conversion feature as well as changes in our working capital accounts, primarily an increase in accounts payable and accrued expenses.

During the year ended December 31, 2014, cash used in operating activities was $1,591,423. Cash used in operating activities primarily reflected our net losses for the period, offset by non-cash charges such as stock compensation, amortization of discount charged to interest expense on the Convertible Notes and changes in fair value of debt conversion feature and accrued license fees, as well as changes in our working capital accounts, primarily an increase in accounts payable, accrued expenses, accrued license fees, debt conversion feature liability and an increase in deferred initial public offering financing costs.

During the nine months ended September 30, 2014, cash used in operating activities of $1,150,457 primarily reflected our net losses for the period, offset by non-cash charges such as changes in fair value of debt conversion feature liability, amortization of discount charged to interest expense on the Convertible Notes and stock

compensation, as well as changes in our working capital accounts, primarily consisting of an increase in prepaid expenses, accounts payable and accrued expenses.

During the nine months ended September 30, 2015, cash used in operating activities of $5,432,104 primarily reflected our net losses for the period, offset by non-cash charges such as an increase in the fair value of accrued license fees and debt conversion feature liability, amortization of discount charged to interest expense on the Convertible Notes and the Ligand Note, stock compensation and changes in our working capital accounts, primarily consisting of an increase in prepaid expenses, accounts payable and accrued expenses.

Cash Used in Investing Activities

We did not engage in any investing activities during the year ended December 31, 2013 or 2014 or during the nine months ended September 30, 2014. During the nine months ended September 30, 2015, cash used in investing activities of $15,426,042 resulted from the investment of the proceeds from the IPO into short term investments that are available for sale.

Cash Provided by Financing Activities

During the year ended December 31, 2013, cash provided by financing activities was $257,854, which consisted of proceeds from the issuance of Convertible Notes in the amount of $260,350, offset by the repurchase of shares of restricted common stock for an aggregate purchase price of $2,503.

During the year ended December 31, 2014, cash provided by financing activities was $2,167,661, which consisted primarily of proceeds from the issuance of the Note in the amount of $2,500,000, offset by the payment of certain deferred offering costs of $332,337 and the repurchase of shares of restricted common stock from a former service provider at par value.

During the nine months ended September 30, 2014, cash provided by financing activities of $1,765,253 was primarily due to proceeds from our issuance and sale of a convertible note payable.

During the nine months ended September 30, 2015, cash provided by financing activities of $22,242,404 was primarily due to the net proceeds from the IPO.

Future Funding Requirements

Based upon our current operating plan, we believe we will have sufficient cash to meet our projected operating requirements for at least the next 12 months.

We anticipate that we will continue to generate losses for the foreseeable future, and we expect the losses to increase materially as we continue the development of, and seek regulatory approvals for, our drug candidates, and seek to commercialize any drugs for which we receive regulatory approval. We anticipate that we will need to raise additional capital after this offering to fund our operations and complete our ongoing and planned clinical trials. Although we expect to finance future cash needs through public or private equity or debt offerings, funding may not be available to us on acceptable terms, or at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may be required to delay, limit, reduce or terminate our drug development or future commercialization efforts or grant rights to develop and market drug candidates that we would otherwise prefer to develop and market ourselves.

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

- the scope, rate of progress, results and cost of our clinical trials, preclinical studies and other related activities;

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the timing of, and the costs involved in, obtaining regulatory approvals for any of our current or future drug candidates;

the number and characteristics of the drug candidates we seek to develop or commercialize;

the cost of manufacturing clinical supplies, and establishing commercial supplies, of our drug candidates;

the cost of commercialization activities if any of our current or future drug candidates are approved for sale, including marketing, sales and distribution costs;

the expenses needed to attract and retain skilled personnel;

the costs associated with being a public company;

our ability to establish and maintain strategic collaborations, licensing or other arrangements and the financial terms of such agreements;

the amount of revenue, if any, received from commercial sales of our drug candidates, should any of our drug candidates receive marketing approval; and

the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing possible patent claims, including litigation costs and the outcome of any such litigation.

Contractual Obligations and Commitments

The following table summarizes our payments due by period pursuant to our outstanding contractual obligations at December 31, 2014:

	Total	Less than 1 Year	1-3 Years	4-5 Years	More than 5 Years
Convertible notes payable and estimated interest	$ 3,066,475	$ 333,906	$ 2,732,569	$ -	$ -
Lease payments	10,234	10,234	-	-	-
Total	$ 3,076,709	$ 344,140	$ 2,732,569	$ -	$ -

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K promulgated by the SEC.

Recent Accounting Pronouncements

In August 2013, the FASB issued Accounting Standards Update, or ASU, No. 2013-11, *Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists* , which sets forth circumstances in which an unrecognized tax benefit, generally reflecting the difference between a tax position taken or expected to be taken on a company s income tax return and the benefit recognized on its financial statements, should be presented in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward. This guidance became effective for us beginning in fiscal year 2014 and the adoption of this standard did not have a material impact on our financial statements or notes thereto.

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In June 2014, the FASB issued ASU No. 2014-10, *Development Stage Entities* (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation. The amendments in this ASU remove the definition of a development stage entity from the Master Glossary of the Accounting Standards Codification, thereby removing the financial reporting distinction between development stage entities and other reporting entities from accounting principles generally accepted in the United States of America. In addition, the amendments eliminate the requirements for development stage entities to: (1) present inception-to-date information in the statements of income, cash flows and shareholder equity; (2) label the financial statements as those of a development stage entity; (3) disclose a description of the development stage activities in which the entity is engaged; and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. The presentation and disclosure requirements in Topic 915 will no longer be required for the first annual period beginning after December 15, 2014. The revised consolidation standards are effective one year later, in annual periods beginning after December 15, 2015. Early adoption is permitted. We chose to early adopt this new standard effective as of December 31, 2014. The adoption of this standard did not have a material impact on our financial position or results of operations.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties about an Entity s Ability to Continue as a Going Concern*, or ASU 2014-15. ASU 2014-15 provides guidance on presentation of management s plans, when conditions or events, considered in the aggregate, raise substantial doubt about an entity s ability to continue as a going concern within one year after the date that the financial statements are issued. This guidance is intended to mitigate those conditions or events that will alleviate substantial doubt about the entity s ability to continue as a going concern. ASU 2014-15 is effective for fiscal years ending after December 15, 2016. The adoption of ASU 2014-15 is not expected to have a material impact on our financial statements.

Quantitative and Qualitative Disclosures about Market Risk

As of September 30, 2015, we had cash and cash equivalents and investments totaling $17,489,622, consisting of bank deposits, money market funds, certificates of deposit and corporate debt securities. These balances are not subject to significant interest rate risk and the carrying value of our cash and cash equivalents and investments approximated their fair value. Our investment policy requires investments to be of high credit quality, primarily rated P-1 by Moody s, A-1 by Standard & Poor s or F1 by Fitch for short-term investments, A2 by Moody s, A by Standard & Poor s or A by Fitch for long-term investments and AAA-rated by Moody s, Standard & Poor s or Fitch for money market fund investments, with the objective of minimizing the potential risk of principal loss. Short-term investments generally have an effective maturity of less than one year and are classified as available-for-sale and, consequently, are recorded on the balance sheet at fair value with unrealized gains and losses reported in accumulated other comprehensive income (loss). As stated in our investment policy, we seek to preserve principal and ensure security of capital through the management of credit quality, market rate and maturity and interest rate risks. Because of the short weighted average maturity of our investment portfolio at September 30, 2015, we believe that the fair value of our investment portfolio would not be significantly impacted by either a hypothetical 100 basis point increase or decrease in market interest rates. If hypothetical market interest rates increased by 100 basis points, we may incur $83,000 of unrealized loss. If hypothetical market interest rates decreased by 100 basis points, we may incur $83,000 of unrealized gain.

We do not have any foreign currency or derivative financial instruments accounted for under hedge accounting.

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BUSINESS

Overview

We are a clinical-stage biopharmaceutical company focused on the development of novel, first-in-class or best-in-class therapies for metabolic and endocrine disorders. We have exclusive worldwide rights to a portfolio of five drug candidates in clinical trials or preclinical studies, which are based on small molecules licensed from Ligand. Our lead clinical program is VK5211, an orally available drug candidate, currently in a Phase 2 clinical trial for acute rehabilitation following non-elective hip fracture surgery. Hip fracture is a common injury among persons aged 60 and older. The acute recovery period post-injury is characterized by significant and rapid declines in bone mineral density, or BMD, and lean body mass, or LBM, which contributes to substantial morbidity and mortality in these patients. VK5211 is a non-steroidal selective androgen receptor modulator, or SARM. A SARM is designed to selectively interact with a subset of receptors that have a normal physiologic role of interacting with naturally-occurring hormones called androgens. Broad activation of androgen receptors with drugs, such as exogenous testosterone, can stimulate muscle growth and improve BMD, but often results in unwanted side effects such as prostate growth, hair growth and acne. VK5211 is expected to selectively produce the therapeutic benefits of testosterone in muscle and bone tissue, potentially accelerating rehabilitation and improving patient outcomes. VK5211 is also expected to have improved safety, tolerability and patient acceptance relative to testosterone. We commenced the Phase 2 study of VK5211 in October 2015 and expect to complete the trial in the second half of 2016.

Our second clinical program is VK2809, an orally available, tissue and receptor-subtype selective agonist of the thyroid beta receptor that is entering Phase 2 development for the treatment of patients with hypercholesterolemia and fatty liver disease. VK2809 belongs to a family of novel prodrugs which are cleaved *in vivo* to release potent thyromimetics. Selective activation of the TRß receptor in liver tissue is believed to favorably affect cholesterol and lipoprotein levels via multiple mechanisms, including increasing the expression of low-density lipoprotein, or LDL, receptors and increasing mitochondrial fatty acid oxidation. We expect to commence the Phase 2 study of VK2809 in the fourth quarter of 2015 and to complete the trial in second half of 2016.

We are also developing VK0214 for X-linked adrenoleukodystrophy, or X-ALD, a rare X-linked, inherited neurological disorder characterized by a breakdown in the protective barriers surrounding brain and nerve cells. The disease, for which there is no approved treatment, is caused by mutations in a peroxisomal transporter of very long chain fatty acids, or VLCFA, known as ABCD1. As a result, transporter function is impaired and patients are unable to efficiently metabolize VLCFA. VK0214 is a novel selective thyroid hormone receptor beta, or TRß, agonist. The thyroid beta receptor is known to regulate expression of an alternative VLCFA transporter, known as ABCD2. Various preclinical models have demonstrated that increased expression of ABCD2 can lead to normalization of VLCFA metabolism. Preliminary *in vitro* data suggest that VK0214 stimulates ABCD2 expression. We plan to commence further studies in animals during the fourth quarter of 2015. Pending completion of this work, we expect to commence work directed toward filing an Investigational New Drug Application, or IND, in 2016.

We have a pipeline with three additional programs targeting metabolic diseases and anemia. Our most advanced pipeline program is VK0612, a first-in-class, orally available Phase 2b-ready drug candidate for type 2 diabetes. Preliminary clinical data suggest VK0612 has the potential to provide substantial glucose-lowering effects, with an attractive safety and convenience profile compared with existing type 2 diabetes therapies. Our preclinical programs are focused on identifying orally available erythropoietin receptor, or EPOR, agonists, for the potential treatment of anemia, and on the development of tissue-selective inhibitors of diacylglycerol acyltransferase-1, or DGAT-1, for the potential treatment of obesity and dyslipidemia.

VK5211 is an orally available small molecule drug candidate in development for maintenance or improvement of lean body mass, or LBM, BMD and function in patients recovering from non-elective hip fracture surgery. VK5211 is a non-steroidal SARM. VK5211is designed to selectively interact with androgen receptors in a way

that avoids unwanted side effects of testosterone, such as prostate growth, hair growth and acne. We expect VK5211 to produce the therapeutic benefits of testosterone, including increased LBM and BMD, with improved safety, tolerability and patient acceptance due to a tissue-selective mechanism of action and an oral route of administration. Tissue selectivity is particularly important in treating patients recovering from non-elective hip fracture surgery, as these patients experience abnormally elevated losses of muscle tissue and BMD. This results in a loss of muscle strength, an increased risk of additional fractures and increased mortality. We believe the selective stimulation of androgen receptors in muscle and bone provides an attractive therapeutic approach for patients recovering from hip fractures. In Phase 1 clinical trials, VK5211 demonstrated statistically significant increases in LBM among treated subjects following 21 days of treatment. Statistically significant refers to a low probability, generally regarded as less than or equal to 5%, of obtaining the observed result under a hypothesis that assumes no difference between treatment groups. We also observed positive dose-dependent trends in functional exercise and strength measures consistent with anabolic activity. In addition, no drug-related serious adverse events were reported. In an established animal model of osteoporosis, treatment with VK5211 resulted in significant increases in BMD and bone strength. In October 2015, we commenced enrollment for a Phase 2 proof-of-concept clinical trial in patients recovering from non-elective hip fracture surgery, and we expect to enroll a total of 120 patients and complete this clinical trial in the second half of 2016. We also plan to discuss with the U.S. Food and Drug Administration, or the FDA, potential clinical development of VK5211 in other acute use settings, such as cancer cachexia.

Hip fractures occur in over 300,000 persons in the U.S. annually. Most hip fractures occur in the elderly, often resulting from minimal trauma, such as a fall from standing height. Unfortunately, elderly individuals are at higher risk of substantial morbidity and mortality due to these fractures as a result of higher rates of frailty and undernourishment. Furthermore, the rate of hip fracture is known to increase with age, doubling every 5-6 years after age 60. Hip fractures can lead to devastating consequences. Disability frequently results from persistent pain and limited physical mobility. Hip fractures are associated with substantial morbidity and mortality, with approximately 15%-20% of patients dying within one year of fracture. There are currently no approved therapies in the U.S. for restoration or preservation of LBM, BMD or physical function in patients who have suffered a hip fracture. Pharmacological interventions, including with steroids, have demonstrated limited clinical benefit or expose patients to the risk of undesirable side-effects, such as virilization in women and prostate growth in men. We believe the potential size of the worldwide hip fracture treatment market for a SARM exceeds $1.0 billion annually.

Our second pipeline program is focused on the development of orally available small molecule TRß agonists. Our two lead molecules are VK2809 and VK0214. We believe selective thyroid receptor agonists have the potential to treat a variety of lipid disorders. Thyroid hormone receptors are found in several tissues throughout the body. The TRß isoform is the major receptor subtype expressed in the liver and the TRa isoform is the major subtype expressed in the heart. Selective activation of the TRß receptor in liver tissue is believed to favorably affect cholesterol and lipoprotein levels via multiple mechanisms, including increasing the expression of low-density lipoprotein receptors and increasing mitochondrial fatty acid oxidation. These characteristics in turn lead to reductions of LDL cholesterol, or LDL-C, plasma and liver triglycerides. We are developing VK2809 for the potential treatment of hypercholesterolemia and fatty liver disease. We are developing VK0214 for the potential treatment of X-ALD.

We believe our selective TRß agonists are capable of achieving this unique lipid lowering profile without eliciting unwanted effects on the heart and thyroid hormone axis. In a Phase 1 multiple ascending dose clinical trial, patients with mild hypercholesterolemia who were treated with VK2809 at doses of 5 mg and above experienced significant placebo-adjusted LDL-C reductions from baseline, ranging from approximately 15%-41%. In addition, placebo-adjusted triglyceride levels were reduced by more than 30% at doses of 2.5 mg and above. There were no serious adverse events observed in this trial, and no differences in heart rate, heart rhythm or blood pressure were observed between VK2809 and placebo-treated patients. In addition, VK2809 has demonstrated significant reductions in liver fat content in multiple animal models of fatty liver disease, suggesting potential efficacy in the setting of

nonalcoholic steatohepatitis, or NASH.

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In the U.S., the number of patients with dyslipidemia was estimated to be greater than 100 million in 2013. In the U.S., 33.5% of adults, or 71.0 million people, have high LDL-C. NASH is a growing epidemic in the U.S., and is quickly becoming a leading cause of cirrhosis and liver failure. It is estimated that NASH affects 2% to 5% of Americans, or 6.0 to 15.0 million people. As a result, we believe the global market opportunity for VK2809 in hypercholesterolemia or NASH exceeds $1.0 billion.

We are also developing TRß agonists for the treatment and potential prophylaxis of X-ALD, a rare X-linked, inherited neurological disorder characterized by a breakdown in the protective barriers surrounding brain and nerve cells. The disease, for which there is no approved treatment, is caused by mutations in a transporter of very long chain fatty acids, or VLCFA, known as the adenosine triphosphate binding cassette transporter D1, or ABCD1. As a result of the mutations, transporter function is impaired and patients are unable to efficiently metabolize VLCFA. The thyroid beta receptor is known to regulate expression of an alternative VLCFA transporter, known as ABCD2. Various preclinical models have demonstrated that increased expression of ABCD2 can lead to normalization of VLCFA metabolism. Preliminary data suggest that our molecules stimulate ABCD2 expression levels. We expect to commence *in vivo* studies of VK0214 in the fourth quarter of 2015, and to report preliminary data in 2016.

X-ALD is a rare, often fatal condition believed to occur with an incidence of approximately one in 17,000 births. X-ALD is caused by mutations in the gene encoding for ABCD1, which is located on the X chromosome. Men have one X chromosome, while women have two copies. Therefore, an inherited mutation in the ABCD1 gene is more likely to manifest in males relative to females. The ABCD1 protein plays a critical role in the transport of VLCFA into a cellular organelle called the peroxisome, where VLCFA metabolism and disposal occur. Without functional ABCD1, VLCFA accumulate in cells, including neural cells, where they can lead to membrane disruption and damage to the myelin sheath, a protective and insulating membrane that surrounds nerve cells in the brain. This damage can result in decreased motor coordination and function, visual and hearing disturbances, the loss of cognitive function, dementia, seizures, adrenal dysfunction and other complications, including death. There are currently no approved therapies for X-ALD and pharmacologic interventions have demonstrated limited clinical benefit. As a result, we believe the worldwide X-ALD market exceeds $1.0 billion.

We were incorporated under the laws of the State of Delaware on September 24, 2012. We have an exclusive license agreement with Ligand for worldwide rights to VK5211, VK2809, VK0214 and three additional programs for diabetes, anemia and lipid disorders. Pursuant to the terms of an exclusive license agreement with Ligand Pharmaceuticals Incorporated, or Ligand, we issued to Ligand, at the closing of the initial public offering of shares of our common stock, or the IPO, 3,655,964 shares of our common stock having an estimated aggregate value of $29.2 million, and agreed to pay to Ligand certain development and commercial milestone payments in an aggregate amount of up to $1.54 billion, as well as single-digit royalties on future worldwide net product sales. Further details regarding our license agreement with Ligand are discussed in the section of this prospectus entitled Agreements with Ligand .

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Our Product Pipeline

The following table highlights our product pipeline:

Key: SARM, selective androgen receptor modulator; TRß, thyroid receptor beta; NASH, nonalcoholic steatohepatitis.

Our Strategy

We intend to become a leading biopharmaceutical company focused on the development of novel, first-in-class or best-in-class therapies for metabolic and endocrine disorders. The key elements of our strategy include:

Advance the development of VK5211 for hip fracture and other muscle wasting disorders. We have commenced enrollment for a Phase 2 proof-of-concept clinical trial in patients recovering from non-elective hip fracture surgery, and we expect to enroll a total of 120 patients and complete this clinical trial in the second half of 2016. Pending positive data from this clinical trial, we plan to advance VK5211 in further clinical trials.

Advance the development of VK2809 for hypercholesterolemia and fatty liver disease. We plan to commence a Phase 2 clinical trial in approximately 100 patients with hypercholesterolemia and fatty liver disease in the fourth quarter of 2015. We expect to complete this clinical trial in the second half of 2016.

Advance the development of VK0214 for X-ALD. We plan to pursue the development of VK0214 in an animal model of X-ALD in the fourth quarter of 2015 and complete the model study in 2016.

Advance the development of VK0612 for type 2 diabetes. Pending additional funding, we intend to commence clinical development of VK0612 to evaluate once-daily doses of VK0612 in patients with poorly-controlled type 2 diabetes.

Advance the development of our preclinical programs. We currently have two additional preclinical programs in development. Pending additional funding, we also plan to further advance our EPOR agonist and DGAT-1 inhibitor programs.

Evaluate strategic partnership and collaboration opportunities. We plan to selectively evaluate partnership and collaboration opportunities throughout the duration of our development programs. In addition, we may opportunistically pursue in-licensing opportunities.

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VK5211: A Selective Androgen Receptor Modulator (SARM) for Hip Fracture

Product Summary

Our lead clinical program, VK5211, is an orally available, non-steroidal SARM in development for the treatment of patients recovering from non-elective hip fracture surgery. VK5211 is designed to selectively produce the therapeutic benefits of testosterone in muscle and bone tissue with improved safety and tolerability. Tissue selectivity is critical in treating patients recovering from hip fracture. These patients experience elevated rates of metabolic breakdown of muscle tissue and loss of BMD. This results in a loss of muscle strength, an increased risk of additional fractures and increased mortality. Androgens, such as testosterone, are hormones that stimulate a variety of physiologic processes, including muscle, bone, hair and prostate growth. However, testosterone s lack of selectivity can produce undesirable side effects such as prostate growth in men, and hair growth and masculinization in women.

VK5211 has been evaluated in three Phase 1 clinical trials. Based on these clinical and additional preclinical data, we believe VK5211 has the following important characteristics that may suggest therapeutic benefits in patients recovering from hip fracture surgery:

Improvement in lean body mass: Preliminary Phase 1 data suggest VK5211 rapidly stimulates the formation of LBM, an important property for the hip fracture recovery setting, where patients can lose up to 6% of lean body mass in the two months following injury.

Improvement in bone growth and density: VK5211 has demonstrated encouraging efficacy in a standard animal model of osteoporosis, demonstrating improved bone mineral content, density and strength. This may benefit patients following hip surgery, where loss of bone mineral density can exceed 12 times the background rate for patients with osteoporosis.

Encouraging tolerability: VK5211 has been well-tolerated at and above doses that we are currently administering in our Phase 2 clinical trial.

Novel mechanism of action: Based on the anabolic characteristics imparted by selective activation of the androgen receptor, we believe VK5211 may stimulate bone and muscle growth, without demonstrating adverse bone remodeling properties that are a potential concern for osteoporosis drugs such as bisphosphonates. We expect VK5211 s novel mechanism of action to provide critical bone and muscle growth promoting advantages.

Once-daily, oral convenience: Clinical data suggest that VK5211 has the potential to provide therapeutic benefits via once-daily oral dosing. This may represent an important advantage among elderly patients, relative to injectable protein or bisphosphonate therapies.

The initial IND filing for VK5211 was submitted in December 2008 by Ligand. The subject of the IND was an application to begin clinical investigations of the drug substance in healthy volunteers. In a Phase 1 clinical trial, VK5211 was shown to be safe and well-tolerated following daily oral administration for 21 days. In this clinical trial, statistically significant increases in lean muscle mass were observed in drug-treated subjects compared to subjects

treated with placebo (p=0.047), and positive dose-dependent trends in functional exercise and strength measures were consistent with anabolic activity. Statistically significant refers to a low probability, generally regarded as less than or equal to 5%, of obtaining the observed result under a hypothesis that assumes no difference between treatment groups. No clinically significant drug-related adverse events were reported. In animal models, VK5211 has demonstrated anabolic activity in muscles, anti-resorptive and anabolic activity in bones, and robust selectivity for muscle and bone versus prostate and sebaceous glands.

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In October 2015, we commenced enrollment for a Phase 2 proof-of-concept clinical trial in patients recovering from non-elective hip fracture surgery, and we expect to enroll a total of 120 patients and complete this clinical trial in the second half of 2016. Pending positive data from this clinical trial, we plan to advance VK5211 in further clinical trials. We also plan to discuss with the FDA potential clinical development of VK5211 in other settings, such as cancer cachexia.

Androgens and Androgen Receptors

Androgens are important for the proper regulation of the reproductive system, and play critical roles in the homeostasis of the muscular, skeletal, cardiovascular, metabolic and central nervous systems. The most predominant androgen hormone is testosterone. Testosterone is predominately produced in the testes in men and in the adrenal glands and ovaries in women, albeit at lower levels than in men. Testosterone stimulates the growth of muscle and bone, also known as anabolic effects, as well as the growth of the prostate and sebaceous gland, also known as androgenic effects and, as such, testosterone is considered a non-tissue-selective androgen.

While testosterone preparations are widely used for the treatment of male hypogonadism, the androgenic activity of testosterone limits its use in women and in elderly men who have a higher risk of developing benign prostatic hyperplasia, or BPH, a benign increase in prostate size, and prostate cancer. In men, the lack of selectivity of anabolic steroids may result in side effects such as acne, hair loss and progression of BPH and/or prostate cancer. In women, exposure to exogenous testosterone can be associated with hair growth, acne and masculinization. Furthermore, testosterone must be administered by intramuscular injections, transdermal patches or gels. These routes of administration can be inconvenient or associated with potential safety issues. We believe VK5211 s selectivity, limited off-target effects and convenient route of administration may make it superior to off-label testosterone for treating hip fracture and other muscle wasting disorders.

SARMs are a class of small molecules designed to elicit the benefits of androgens on tissues such as muscle and bone, without the undesirable effects on prostate and sebaceous glands, by selectively activating androgen receptors in certain tissues. We believe that, based on their robust activity on muscle and bone, SARMs can be used for the potential treatment of a number of diseases or disorders, including hip fracture, muscle wasting, osteoporosis, frailty and hormone deficiency in both men and women in cases where testosterone supplements or anabolic steroid treatments are ineffective or where the side effect profile is inappropriate.

Hip Fracture and Other Muscle Wasting Market Opportunities

We are currently conducting a Phase 2 clinical trial for acute rehabilitation following non-elective hip fracture surgery. More than 300,000 patients in the U.S. experience hip fractures each year, and approximately 50% lose the ability to live independently following the injury. The number of hip fractures is expected to grow in the U.S. as the population ages. Due to required limitations in mobility following hip fracture, patients experience muscle atrophy, or deterioration from lack of use, which impacts the time required for rehabilitation to restore physical function. We believe VK5211 s potential stimulatory effect on lean body mass could result in benefits to patients recovering from hip fracture or other conditions requiring orthopedic intervention, such as hip or knee replacement surgery. Currently, there are no approved therapies to assist in the maintenance or restoration of LBM, BMD and restoration of functional performance for these patients.

Hip fracture in the elderly is a serious and debilitating condition with a high mortality rate. One year mortality in this group is estimated to range from 20% to 30% and an estimated 50% of patients lose the ability to walk independently. As a result of the loss of mobility, and additional morbidities caused by the hip fracture, 20% of patients will require stays at long-term care facilities. Studies show that following hip fracture, patients experience a severe and rapid

decline in LBM and BMD. These reported rates of decline are 12 to 75 times the rates observed in persons of similar age and demographics who have not sustained a hip fracture. Loss of LBM is believed to contribute to morbidity, disability and risk of re-fracture in hip fracture patients. Loss of BMD is

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associated with an increased risk of mortality and re-fracture. The following graphs illustrate the representative losses in LBM and BMD in the 60 days following hip fracture, as measured in the total hip and at the femoral neck.

No therapies are currently approved to treat patients experiencing loss of LBM and BMD in the acute setting following non-elective hip fracture surgery. In addition, there are no approved therapies to facilitate improved functional performance following surgery.

VK5211: A Potent, Non-Steroidal SARM

VK5211 is an orally available, non-steroidal SARM. VK5211 is a third generation SARM with greatly improved tissue-selectivity and other characteristics relative to earlier-generation SARM-targeting drug candidates. VK5211 selectively activates androgen receptors in muscle and bone, stimulating muscle and bone growth, while avoiding undesirable side effects, such as unwanted hair growth, acne or stimulation of sebaceous glands and prostate growth. We believe VK5211 is a potential best-in-class compound due to its selectivity, potency and ability to show positive effects within a short treatment duration.

Clinical Data for VK5211

In three Phase 1 clinical trials, VK5211 was shown to be safe and well-tolerated at all doses following daily oral administration for up to 21 days. There were no reported serious adverse events determined to be related to treatment, and no clinically significant changes in liver function tests, prostate-specific antigen, hematocrit or electrocardiogram readings were observed. Moreover, subjects treated with VK5211 for 21 days experienced statistically significant increases in lean muscle mass, and positive dose-dependent trends in functional exercise and strength measures were consistent with anabolic activity.

The first Phase 1 clinical trial was a randomized, double-blind, placebo-controlled trial in 48 healthy male volunteers conducted in 2009. In this clinical trial, six cohorts received an escalating single dose of VK5211 ranging from 0.1 mg to 22 mg. The primary objective of this clinical trial was to evaluate the safety and tolerability of escalating single doses of VK5211 in healthy male subjects. Secondary objectives of the first Phase 1 clinical trial included a determination of the pharmacokinetics, or PK, and pharmacodynamics, or PD, of single escalating doses of VK5211 in healthy male subjects. The actual results showed that single doses at the levels administered were well-tolerated and no serious or severe adverse events were observed among subjects receiving VK5211. The PD results showed dose-related decreases in total testosterone and sex-hormone binding protein, consistent with the mechanism of action of selective androgen receptor modulation. A dose-related decrease in fasting serum HDL was also observed. VK5211 was well-tolerated and demonstrated predictable dose-proportional increases in systemic exposure.

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In a subsequent Phase 1 multiple ascending dose clinical trial, which commenced in 2010 and was completed in 2011, 76 healthy men in three cohorts were dosed daily with placebo, 0.1 mg, 0.3 mg or 1 mg of VK5211 for 21 days. The primary objective of the second Phase 1 clinical trial for VK5211 was to assess the safety and tolerability of escalating doses of VK5211 following repeated once-daily oral administration for 21 days in healthy men. Secondary objectives included a determination of the PK and PD of VK5211 following repeated once-daily oral administration for 21 days. Exploratory objectives included a determination of the effects of 21 days of treatment with VK5211 on lean body mass measured by dual energy X-ray absorptiometry scan, maximal voluntary strength measured by the one repetition maximum method, and stair climbing power. The average body mass index in all cohorts ranged from 24.6 kg/m^2 to 27.0 kg/m^2 . In this clinical trial, subjects receiving 1 mg doses of VK5211 demonstrated a statistically significant 1.21 kilogram average increase in lean body mass. Positive, dose-dependent trends in strength and performance measurements were also observed. There were no significant changes or trends in fat mass across cohorts. VK5211 was shown to be safe, with a similar frequency of adverse events between the treated and placebo groups. VK5211 also displayed a favorable pharmacokinetic profile, without any changes in prostate-specific antigen.

In September 2015, we completed a Phase 1 clinical trial of VK5211 in 24 healthy male and female subjects aged 65 and over. Subjects received once-daily oral doses of VK5211 for seven days. The results of this study showed VK5211 to be safe and well-tolerated, with predictable pharmacokinetic properties.

Preclinical Data

VK5211 has also demonstrated anabolic activity in muscles, anti-resorptive and anabolic activity in bone, and robust selectivity for muscle and bone verses prostate and sebaceous glands in animal models. The effects of VK5211 on bone strength, bone mineral content and BMD were evaluated in ovariectomized female rats, which are rats that have undergone surgical removal of the ovaries. The ovariectomized rat model is a standard animal model for evaluating the effect of pharmaceutical agents in osteoporosis, because removal of ovaries stimulates high bone turnover and subsequent bone loss, creating a simulated post-menopausal state that models the metabolic changes in post-menopausal osteoporosis patients. As shown below, in ovariectomized rats, at the two highest doses, VK5211 produced significant increases in femur bone mineral content and bone strength relative to ovariectomized rats treated with vehicle. In addition, VK5211 demonstrated anabolic effects in bone formation rates, bone density, bone volume and trabecular thickness.

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Effects of VK5211 on Bone in Ovariectomized Rats

The tissue-selectivity of VK5211 was examined in a castrated rat model. The castrated rat model is a standard animal model for examining tissue selectivity for SARMs due to the rapid nature of muscle atrophy in castrated animals and the high sensitivity to muscle growth upon androgen-based treatment. Muscle mass can be restored with a potent androgen-receptor agonist, such as testosterone. Initially, rats are castrated or receive sham surgery. Sham rats are rats that receive surgical procedures that do not remove the ovaries or have other physiologic purposes. Upon recovering from the surgery, castrated and sham rats are administered either an active therapy such as VK5211 or testosterone. The effects of therapy in this model are assessed by measuring muscle and prostate tissue mass. Muscle mass in castrated animals treated with vehicle is assigned 0% relative efficacy, while muscle mass in non-castrated animals that underwent sham surgery is assigned 100% relative efficacy. For example, a castrated rat treated with a drug that demonstrates 100% relative efficacy would have equivalent tissue mass to a non-castrated rat.

In this model, VK5211 demonstrated greater than 500-fold selectivity for maintaining muscle weight at non-castrate levels relative to the effects on prostate weight. By comparison, testosterone shows similar effects on both muscle and prostate tissue. These data suggest that VK5211 is highly tissue-selective for muscle, potentially leading to an improved therapeutic profile relative to testosterone.

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Effects of VK5211 in Muscle and Prostate Tissue in Castrated Rats

In studies of VK5211 in non-human primates, treatment periods of 14 days and 13 weeks resulted in significant increases in muscle mass relative to baseline.

Development Plans

We expect to develop VK5211 for potential treatment of a wide range of diseases and disorders in both men and women. In October 2015, we commenced enrollment for a randomized, double-blind, placebo-controlled, multicenter Phase 2 proof-of-concept trial in patients who recently underwent non-elective hip fracture surgery. We expect to enroll approximately 120 patients in this clinical trial. We will evaluate three doses of VK5211 and plan to assess changes in LBM, BMD, functional status and quality of life among treated versus untreated patients after 12 weeks of therapy. We expect this clinical trial to be completed in the second half of 2016. Pending positive data from this study, we plan to advance VK5211 in further clinical trials. We also plan to discuss with the FDA potential clinical development of VK5211 in other settings, such as cancer cachexia.

Future Opportunity in Cancer Cachexia

Cachexia is a complex disease characterized by an uncontrolled decline in muscle mass. Patients suffering from cachexia experience increased rates of metabolic breakdown of muscle tissue, resulting in a loss of muscle strength and reduced body weight. The condition is often found secondary to an underlying disease, such as cancer, chronic obstructive pulmonary disease, heart failure and HIV/AIDS. It is estimated that a combined total of approximately 9.0 million people suffer from cachexia in the U.S., Europe and Japan. A combination of factors tied to the underlying disease, including reduced growth factor production and overproduction of inflammatory and apoptosis, or cell-death, mediators, create an imbalance in muscle formation and degradation. The resulting dysregulation and associated weight loss leads to increased mortality rates in affected patients. Common clinical symptoms include decline in physical function and impaired immune function, which contribute to increased disability, fatigue, diminished quality of life and reduced rate of survival.

Although muscle wasting associated with cancer can be partially attributed to nutritional deficiencies, the use of appetite stimulants and nutritional interventions are generally ineffective. This is likely due to the failure of these approaches to address the underlying catabolic processes contributing to muscle wasting. Additionally, cancer patients with severe weight loss, poor performance status and metastatic disease who no longer respond to therapy may be less likely to respond to single therapies designed to increase muscle mass and improve physical function. Because muscle wasting, which often leads to refractory cachexia, has significant negative impacts on patients and their families, early intervention with therapeutic agents aimed at stimulating muscle mass is critically important.

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Approximately 2.0 million cancer patients in North America and Europe suffer from cachexia, and it is estimated that up to 20% of all cancer deaths are a direct result of cachexia. It is particularly common among patients with lung, gastric, colorectal or pancreatic cancers, with up to 80% of patients with gastric or pancreatic cancers, and approximately 50% of patients with lung or colorectal cancers, suffering from the syndrome. There are currently no approved therapies in the U.S. for cancer cachexia, and pharmacological interventions have demonstrated limited clinical benefit or expose patients to the risk of undesirable side-effects such as virilization in women and prostate growth in men. As a result, we believe the potential size of the worldwide cancer cachexia market exceeds $1.0 billion.

Pending approval of VK5211 in the acute hip fracture setting, we may seek to pursue label expansion for VK5211 in non-small cell lung cancer, or NSCLC, patients with cachexia. According to the American Cancer Society, an estimated 224,000 patients in the U.S. are projected to be diagnosed with lung cancer in 2014, of which approximately 85% of these cases are expected to be NSCLC. At diagnosis, approximately half of NSCLC patients present with some form of muscle wasting syndrome. Muscle wasting in this population is associated with reduced strength, increased fatigue and a decrease in overall quality of life. In addition, data indicate that lean body mass may correlate with overall survival, suggesting a potential link between improvement in lean body mass and survival. We believe VK5211 may benefit a large segment of the NSCLC patient population, due to the drug s potential therapeutic benefits on muscle mass and associated functional gains.

In the U.S., the number of patients with dyslipidemia was estimated to be greater than 100 million in 2013. In the U.S., 33.5% of adults, or 71.0 million people, have high LDL-C. NASH is a growing epidemic in the U.S., and is quickly becoming a leading cause of cirrhosis and liver failure. It is estimated that NASH affects 2% to 5% of Americans, or 6.0 to 15.0 million people. As a result, we believe the global market opportunity for VK2809 or VK0214 in hypercholesterolemia or NASH exceeds $1.0 billion.

VK2809 and VK0214: Novel Selective Thyroid Hormone Receptor-ß, or TRß, Agonists for Lipid Disorders and Adrenoleukodystrophy

Product Summary

VK2809 and VK0214 are novel, orally available, selective TRß agonists in development for lipid disorders and X-ALD. Thyroid hormone receptors are found in various tissues throughout the body. TRß is the major receptor isoform expressed in the liver and TRa is the major isoform expressed in the heart. The unique properties of our TRß agonists are designed to reduce or eliminate the deleterious effects of extra-hepatic thyroid receptor activation. In particular, high tissue and TRß selectivity may lead to reduced activity at the TRa receptor, which can be associated with increased respiration and cardiac tissue hypertrophy. Selective activation of the TRß receptor in liver tissue is believed to favorably affect cholesterol and lipoprotein levels via multiple mechanisms, including increasing the expression of low-density lipoprotein receptors and increasing mitochondrial fatty acid oxidation. These characteristics in turn lead to reductions of LDL-C, plasma and liver triglycerides. In addition, our chemical structures are not substrates for certain transporters involved in the uptake of thyroid hormone. Various animal models have shown that our molecules, as a result of their unique profiles, may have reduced cardiovascular effects versus thyroid hormone and other thyromimetics.

As a result of these characteristics, we believe our selective TRß agonists are capable of eliciting a unique lipid lowering profile without eliciting unwanted effects on the heart and thyroid hormone axis. In Phase 1 clinical trials, subjects treated with VK2809 at doses of 5 mg and above experienced significant placebo-adjusted LDL-C reductions from baseline, ranging from approximately 15-41%. In addition, placebo-adjusted triglyceride levels were reduced by more than 30% at doses of 2.5 mg and above. There were no serious adverse events observed in this trial, and no

differences in heart rate, heart rhythm or blood pressure were observed between VK2809 and placebo-treated patients. In addition, VK2809 has demonstrated significant reductions in liver fat content in multiple animal models of fatty liver disease, suggesting potential efficacy in the NASH setting.

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We are developing VK2809 for the potential treatment of cholesterolemia and fatty liver disease. Because prior studies have shown excellent data in both the lipid-lowering setting and in models of fatty liver disease, we plan to conduct a Phase 2 trial to evaluate both potential indications. We will target patients who have elevated cholesterol, fatty liver disease, and at least three risk factors for metabolic syndrome. Metabolic syndrome is considered a major driver for the onset of NASH. The primary endpoint of this trial will assess changes in LDL-C, with exploratory endpoints evaluating changes in liver fat content, inflammatory markers, and histological changes. We plan to initiate the study in the fourth quarter of 2015 and complete the study in 2016. Upon conclusion, we expect to be in a position to move forward in either hypercholesterolemia or NASH.

VK2809 Summary

VK2809 has been evaluated in two Phase 1 clinical trials. Based on these clinical and additional preclinical data, we believe VK2809 has the following important characteristics that may benefit patients with metabolic or lipid disorders:

Broader efficacy: Preliminary Phase 1 data suggest VK2809 could reduce plasma LDL-C, triglyceride and atherogenic protein levels by greater amounts than existing oral therapies. Such broad and potent lipid lowering-activity may be particularly desirable for poorly-controlled patients with hypercholesterolemia or mixed dyslipidemia, or among patients with risk factors such as chronic kidney disease.

Encouraging safety profile: VK2809 has demonstrated encouraging safety to date in over 110 subjects. No drug related serious adverse events were observed. In addition, no cardiovascular abnormalities were reported, in-line with the expected high tissue and receptor selectivity for VK2809.

Encouraging tolerability: VK2809 has been well-tolerated at and above doses that we plan to administer in future clinical trials, which we expect to be at or below 20 mg, with specific doses to be chosen based on the outcome of planned pharmacokinetic and pharmacodynamic calculations.

Novel mechanism of action: Based on its selective thyroid receptor targeting mechanism of action, we believe VK2809 has the potential to lower plasma and liver lipid levels in a manner complementary to existing agents such as statins. In particular, we expect the unique liver-targeting properties of VK2809 will impart a robust lipid lowering effect within hepatic tissue, with potential therapeutic applications in fatty liver diseases such as NASH.

Combinability: VK2809 s novel mechanism of action is expected to allow combinability with many existing therapies, leading to enhanced efficacy and potentially delaying transition to subsequent therapies.

Once-daily convenience: Clinical data suggest that VK2809 has the potential to lower plasma lipid levels in hypercholesterolemia patients as a once-daily oral therapy.

Clinical Data for VK2809

VK2809 has been evaluated in two Phase 1 clinical trials. The initial Phase 1 safety, tolerability and pharmacokinetic study of VK2809 was conducted in 2006. This was followed by a 14-day Phase 1b trial in 56 patients with mild hypercholesterolemia, defined as baseline plasma LDL-C of at least 100 mg/dL. This study was initiated in 2007 and completed in 2008. VK2809 was shown to be safe and well-tolerated across doses ranging from 0.25 mg to 40 mg per day. There were no serious adverse events, and the frequency of adverse events in VK2809-treated subjects was similar to placebo-treated subjects. No differences in heart rate, heart rhythm or blood pressure were observed between VK2809 and placebo-treated patients. Mild increases in liver

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enzymes were observed at the higher doses of VK2809 along with dose-related mean shifts in thyroid hormone levels. The clinical trial results also showed dose-related reductions in fasting LDL-C and fasting triglyceride, or TG, levels at day 14. Significant placebo-adjusted LDL-C reductions from baseline were observed at doses of 5 mg and above and ranged from approximately 15%-41%, while placebo-adjusted TG levels were reduced by more than 30% at doses of 2.5 mg and above. In addition, statistically significant reductions of lipoprotein a (Lp(a)) and apolipoprotein (Apo(B)), which are believed to be positively associated with a patient s risk of developing cardiovascular disease, were observed in certain cohorts. We believe these preliminary results compare favorably with the lipid lowering activities of existing oral agents for hyperlipidemia. A comparison of the Phase 1b efficacy results of VK2809 and data from existing hyperlipidemia agents is shown in the table below.

Preclinical Data

VK2809, which is our most advanced TRß agonist, is a potent small molecule that is selective for the TRß receptor compared with the alpha receptor. VK2809 has an equilibrium dissociation constant Ki, which refers to the concentration of drug required to occupy 50% of available TRß receptors, of approximately 2 nanomoles per liter, and has approximately 16:1 selectivity for the beta receptor over the alpha receptor. VK2809 has demonstrated cholesterol-lowering activity in five animal species. In addition, VK2809 has demonstrated additive cholesterol lowering activity when combined with atorvastatin, an approved and widely prescribed medication for lowering cholesterol. Treatment of rodents with VK2809 also led to a beneficial reduction in liver fat content. We believe the reduction of liver fat content results suggest a potential benefit in diseases characterized by excessive accumulation of lipids in liver tissue, such as NASH. We believe the totality of results from our TRß agonist program suggest that VK2809 possesses an attractive profile for potential future development in a variety of lipid disorders, including dyslipidemia, hypercholesterolemia and NASH.

VK2809 Development Plans

We are developing VK2809 for potential treatment of cholesterolemia and fatty liver disease. Because prior studies have shown excellent data in both the lipid-lowering setting and in models of fatty liver disease, we plan to conduct a Phase 2 trial to evaluate both potential indications. We will target patients who have elevated cholesterol, fatty liver disease, and at least three of the five criteria developed by the National Cholesterol Education Program Adult Treatment Panel (NCEP ATP, 2005 revision) that are used to diagnose patients with

metabolic syndrome. Metabolic syndrome is considered a major driver for the onset of NASH. The primary endpoint of this trial will assess changes in LDL-C, with exploratory endpoints evaluating changes in liver fat content, inflammatory markers and histological changes. We plan to initiate the study in the fourth quarter of 2015 and complete the study in the second half of 2016. Upon conclusion, we expect to be in a position to move forward in either hypercholesterolemia or NASH.

Opportunity in X-ALD

We are developing VK0214 for X-ALD, a rare X-linked, inherited neurological disorder characterized by a breakdown in the protective barriers surrounding brain and nerve cells. The disease, for which there is no approved treatment, is caused by mutations in a peroxisomal transporter of very long chain fatty acids, or VLCFA, known as ABCD1. As a result, transporter function is impaired and patients are unable to efficiently metabolize VLCFA. VK0214 is a novel selective TRß agonist. TRß is known to regulate expression of an alternative VLCFA transporter, known as ABCD2. Various preclinical models have demonstrated that increased expression of ABCD2 can lead to normalization of VLCFA metabolism. Preliminary *in vitro* data suggest that VK0214 stimulates ABCD2 expression. We plan to commence further studies in animals during the fourth quarter of 2015. Pending completion of this work, we expect to commence work directed toward filing an IND in 2016.

X-ALD is a rare, often fatal condition believed to occur with an incidence of approximately one in 17,000 births. X-ALD is caused by mutations in the gene encoding for ABCD1, which is located on the X chromosome. Men have one X chromosome, while women have two copies. Therefore, an inherited mutation in the ABCD1 gene is more likely to manifest in males relative to females. The ABCD1 protein plays a critical role in the transport of VLCFA into a cellular organelle called the peroxisome, where VLCFA metabolism and disposal occur. Without functional ABCD1, VLCFA accumulate in cells, including neural cells, where they can lead to membrane disruption and damage to the myelin sheath, a protective and insulating membrane that surrounds nerve cells in the brain. This damage can result in decreased motor coordination and function, visual and hearing disturbances, the loss of cognitive function, dementia, seizures, adrenal dysfunction and other complications, including death. X-ALD is divided into various sub-segments, which are broadly characterized by the presence or absence of brain inflammation:

Cerebral adrenoleukodystrophy, or CALD: The most severe form of X-ALD is CALD. CALD is characterized by a progressive inflammatory destruction of myelin, leading to severe loss of neurological function and eventual death. Approximately 35% to 40% of male X-ALD patients present with cerebral involvement at a younger age, between the ages of 5 and 12 years. However, up to 20% of male X-ALD patients develop cerebral involvement later in life, between the ages of 20 and 35 years. In male children affected by CALD, learning and behavioral problems are often the first clinical manifestations of disease. In the absence of intervention, patients affected by CALD typically experience rapid degeneration into vegetative state within 3 to 5 years, often resulting in death within 10 years of diagnosis.

Adrenomyeloneuropathy, or AMN: AMN is the more common form of X-ALD and is considered the default form of the disease in patients surviving beyond childhood. AMN is expected to affect all adult males with ABCD1 mutations, and approximately 65% of females. In males, the diagnosis is usually made between the ages of 20 and 50 and in females after the age of 65. AMN accounts for approximately half of all patients diagnosed with X-ALD. Patients with AMN generally present with slowly progressive symptoms resulting from (non-inflammatory) disruption of the axons, which are a fundamental component of the central nervous system (which allows nerve signals to be transmitted), in the spinal cord. Patients

experience a variety of symptoms, including weakness in the legs, impaired vibration sense, incontinence and impotence. Severe motor disability, requiring the use of a wheelchair or cane, develops over a 3 to 15 year period. Many patients experience lower limb paralysis. While AMN is generally considered to develop more gradually relative to CALD, approximately 35% of AMN patients experience a rapid progression of myelopathy over a three to

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five year period. In addition, approximately 40% of AMN patients have or will develop CALD, with varying degrees of associated inflammation.

No Treatment Options for Majority of X-ALD Manifestations

There is a clear unmet medical need for patients suffering from X-ALD. CALD has been more commonly targeted for treatment due to its devastating effects, which are often manifested at a young age. For these patients, the only currently effective treatment option is allogeneic hematopoietic stem cell, or HSC, transplant. In this procedure, the patient is treated with HSCs containing the properly functioning copy of the ABCD1 gene, contributed by a donor other than the patient. Additionally, a method of ex vivo insertion of a functional copy of the ABCD1 gene via an HIV-1 based lentiviral vector into the patient s own HSCs to correct the aberrant expression of ABCD1 in patients with CALD is also in development. Over time with either method, as the transplanted cells grow and repopulate, a partial restoration of ABCD1 function can be achieved, leading many patients to resolution of progression in the cerebral form of the disease. While these forms of genetic correction have also shown potential clinical benefits, there is currently no approved therapy for X-ALD. In addition, recent data suggest that, even among successfully transplanted patients, AMN can develop. We believe our thyroid receptor agonists, which have the potential to normalize metabolism of VLCFAs peripherally, and potentially centrally, may positively impact all forms of X-ALD, including the currently untreatable AMN form.

VK0214 Development Plans

We also plan to complete ongoing pre-clinical experiments with VK0214 in cell and animal models of X-ALD. We plan to initiate an *in vivo* study in an established model of disease in the fourth quarter of 2015 and to complete the study in 2016. Pending completion of this work, we expect to commence work directed toward filing an IND in 2016.

Three Pipeline Programs Target Metabolic Disease with Large Unmet Medical Need

We have a pipeline with three additional programs targeting metabolic diseases and anemia. Our pipeline programs include VK0612, a first-in-class, orally available Phase 2b-ready drug candidate for type 2 diabetes. Preliminary clinical data suggest VK0612 has the potential to provide substantial glucose-lowering effects, with an attractive safety and convenience profile compared with existing type 2 diabetes therapies. Our preclinical programs are focused on identifying orally available erythropoietin receptor, or EPOR, agonists, for the potential treatment of anemia, and on the development of tissue-selective inhibitors of diacylglycerol acyltransferase-1, or DGAT-1, for the potential treatment of obesity and dyslipidemia.

Fructose-1,6-bisphosphatase (FBPase) Inhibitor Program

VK0612 is a first-in-class, orally available drug candidate for type 2 diabetes, one of the largest global healthcare challenges today. Preliminary clinical data suggest VK0612 has the potential to provide substantial glucose-lowering effects, with an attractive safety and convenience profile compared with existing type 2 diabetes therapies.

VK0612 is a potent, selective inhibitor of fructose-1,6-bisphosphatase, or FBPase, an enzyme that plays an important role in endogenous glucose production, or the synthesis of glucose by the body. We believe the inhibition of FBPase provides an attractive approach to controlling blood glucose levels in patients with diabetes. VK0612 has demonstrated potent glucose lowering effects in diabetic animal models. Clinical trials have shown that VK0612 is safe, well-tolerated and leads to significant glucose-lowering effects in patients with type 2 diabetes. Pending additional funding, we intend to commence additional clinical trials of VK0612 in patients with type 2 diabetes.

VK0612 has been evaluated in seven clinical trials, including one Phase 2a and six Phase 1 clinical trials. The first five Phase 1 studies were conducted between 2006 and 2007. These were followed by the Phase 2a study,

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which was initiated in 2007 and completed in 2008, and the Phase 1b study, which was conducted in 2008. Based on these clinical and additional preclinical data, we believe VK0612 has the following important advantages over many existing type 2 diabetes therapies:

Greater efficacy: Preliminary Phase 1 and 2 data suggest VK0612 could reduce plasma glycated hemoglobin A1c, or HbA1c, an important measure of long-term blood glucose levels, by 1% or more, potentially exceeding the typical anti-glycemic effects of newer drug classes.

Encouraging safety profile: VK0612 has demonstrated encouraging safety to date in over 250 subjects. No cases of hypoglycemia, or low blood glucose levels, lacticemia, or sustained lactic acid in the blood, or other drug-related safety issues were observed in these subjects.

Improved tolerability: VK0612 has been well-tolerated at and above doses that we plan to administer in our Phase 2b clinical trial, which we expect to be at or below 300 mg, with specific doses to be chosen based on the outcome of planned pharmacokinetic and pharmacodynamic calculations.

Novel mechanism of action: Based on its insulin-independent mechanism of action, we believe VK0612 lowers blood glucose levels independently of pancreatic function. We expect VK0612 s novel mechanism of action to provide critical durability and combinability advantages.

Durability: Diabetes is characterized by deteriorating pancreatic beta cell function. Given VK0612 s insulin-independent mechanism of action, the drug could provide a more durable therapeutic effect than many currently available type 2 diabetes therapies.

Combinability: VK0612 s novel mechanism of action is expected to allow combinability with many existing type 2 diabetes therapies, leading to enhanced efficacy and potentially delaying transition to subsequent therapies.

Weight and lipid neutral profile: Clinical and preclinical data suggest VK0612 has the potential to provide robust anti-glycemic effects while maintaining a weight and lipid neutral profile.

Once-daily convenience: Clinical data suggest that VK0612 has the potential to lower blood glucose levels in type 2 diabetes patients as a once-daily oral therapy.

We plan to commence a Phase 2b clinical trial with VK0612 in type 2 diabetes patients at a future date. Pending clinical data from this clinical trial, we may request an end-of-Phase 2 meeting with the FDA or may seek to commence Phase 3 clinical trials in type 2 diabetes patients either on our own or with a third party. The purpose of an end-of-Phase 2 meeting with the FDA would be to review our data with the FDA, discuss appropriate potential Phase 3 clinical trial designs and obtain agreement between us and the FDA on Phase 3 efficacy and safety objectives.

EPO Receptor (EPOR) Agonist Program

We are developing small molecule agonists of the erythropoietin, or EPO, receptor, or EPOR, for the potential treatment of anemia. Anemia results from a decrease in red blood cells and is typically experienced by patients with renal complications, cancer patients and HIV/AIDS patients. These patients currently receive recombinant human EPO and other erythropoiesis-stimulating agents, or ESAs. Total worldwide sales of these agents exceeded $6.0 billion in 2014. However, these agents have a number of limitations, including cost of drug manufacturing, cost of treatment, a non-oral route of administration, and potential for immunogenicity, or possibility of inducing an immune response. Furthermore, ESA treatment is associated with an increased risk of adverse cardiovascular complications in patients with kidney disease when used to increase hemoglobin levels above 13.0 g/dL, and may be related to an increase in mortality in cancer patients. We believe that our drug candidates have the potential to treat anemia with improved safety, tolerability and route of administration. We plan to conduct further preclinical studies and file an IND with the FDA at a future date.

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Diacylglycerol Acyltransferase-1 (DGAT-1) Inhibitor Program

We are developing small molecule inhibitors of the enzyme DGAT-1 for the potential treatment of lipid disorders such as obesity and dyslipidemia. According to the CDC, approximately 36% of the adult U.S. population is obese, with the prevalence expected to exceed 40% by 2018. The World Health Organization estimates at least 500.0 million people are currently obese worldwide. DGAT-1 is a potential therapeutic target for reduction of triglyceride levels in the circulation and fat accumulation in adipose tissues. DGAT-1 null mice exhibit both reduced post-meal plasma triglyceride levels and increased energy expenditure, but have normal levels of circulating free fatty acids. Conversely, transgenic mice that overexpress DGAT-1 in adipose tissue are predisposed to obesity when fed a high-fat diet and have elevated levels of circulating free fatty acids. We have developed a series of novel compounds with tissue-targeting properties intended to mitigate potential side effects by selectively targeting the enterocyte, or intestinal absorptive cells, in the intestine, to inhibit dietary triglyceride uptake, or the liver, to inhibit *de novo* triglyceride synthesis. We plan to conduct further preclinical studies and file an IND with the FDA at a future date.

Competition

The biopharmaceutical industry is characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including commercial biopharmaceutical enterprises, academic institutions, government agencies and private and public research institutions. Any drug candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical studies, clinical trials, regulatory approvals and marketing approved products than we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Our competitors may succeed in developing technologies and therapies that are more effective, better tolerated or less costly than any which we are developing, or that would render our drug candidates obsolete and noncompetitive. Even if we obtain regulatory approval of any of our drug candidates, our competitors may succeed in obtaining regulatory approvals for their products earlier than we do. We will also face competition from these third parties in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, and in acquiring and in-licensing technologies and products complementary to our programs or advantageous to our business.

The key competitive factors affecting the success of each of our drug candidates, if approved, are likely to be its efficacy, safety, tolerability, frequency and route of administration, convenience and price, the level of branded and generic competition and the availability of coverage and reimbursement from government and other third-party payors.

VK5211

In the U.S., there are currently no marketed therapies for the maintenance or improvement of LBM, BMD and function in patients recovering from non-elective hip fracture surgery. However, VK5211, if approved, will face competition from several experimental therapies that are in various stages of development for acute rehabilitation following hip fracture surgery, including programs in development at Novartis AG and Morphosys AG. There are also several experimental therapies that are in various stages of clinical development for conditions characterized by muscle wasting by companies including GTx, Inc., Helsinn Group and Morphosys AG. In addition, nutritional and growth hormone-based therapies are sometimes used in patients experiencing muscle wasting.

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VK2809

There are many therapies currently available and numerous others being developed for the treatment of hypercholesterolemia and dyslipidemia. If approved, VK2809 will face competition from therapies that are currently available and from therapies that may become available in the future. Generic statin therapies such as atorvastatin are widely prescribed for the initial treatment of hypercholesterolemia. Cholesterol absorption inhibitors such as Merck & Co., Inc. s Zetia (ezetimibe), generic bile acid sequestrants such as coleselevam and generic fibrates such as fenofibrate are also prescribed for the treatment of hypercholesterolemia. Various combinations of these therapies are often prescribed for patients suffering from dyslipidemia. In addition, recently-approved antibody therapies targeting the proprotein convertase subtilisin/kexin type 9 (PCSK9) gene are expected to be prescribed for patients whose LDL remains elevated despite treatment with existing cholesterol-lowering agents. While no therapies are currently approved for the treatment of NASH, we are aware of several development-stage programs targeting this disease, including obeticholic acid from Intercept Pharmaceuticals, Inc., GFT550 from Genfit SA, aramchol from Galmed Pharmaceuticals Ltd., simtuzumab from Gilead Sciences, Inc., and emricisan from Conatus Pharmaceuticals Inc.

VK0214

In the U.S., there are currently no marketed therapies for the treatment of X-ALD. Hematopoietic stem cell therapy has been used to treat the most severe form of X-ALD, CALD. More recently, gene therapy has been shown to be effective in CALD as well. However, both treatments are invasive, requiring surgical intervention, and these do not appear to have an effect on the most pervasive form of X-ALD, AMN. High-dose biotin is under investigation for treatment of AMN. There are several experimental therapies that are in various stages of clinical development for X-ALD by companies, including MedDay Pharmaceuticals SAS and bluebird bio, Inc., which may be competitive with VK2809, if approved.

VK0612

In the U.S., VK0612, if approved, will face competition from a variety of currently marketed oral type 2 diabetes therapies, including metformin (generic), pioglitazone (generic), glimepiride (generic), sitagliptin (Merck & Co., Inc.) and canagliflozin (Johnson & Johnson). These therapies are well-established and are widely accepted by physicians, patients, caregivers and third-party payors as the standard of care for the treatment of type 2 diabetes. Physicians, patients and third-party payors may not accept the addition of VK0612 to their current treatment regimens for a variety of potential reasons, including:

- if they do not wish to incur any potential additional costs related to VK0612; or
- if they perceive the use of VK0612 to be of limited additional benefit to patients.

In addition to the currently approved and marketed type 2 diabetes therapies, there are a number of experimental drugs that are in various stages of clinical development by companies such as Eli Lilly and Company, Takeda Pharmaceutical Company Limited and TransTech Pharma, Inc.

Preclinical Programs Focused on EPOR Agonists and DGAT-1 Inhibitors

If any of our preclinical programs are ultimately determined safe and effective and approved for marketing, they may compete for market share with established therapies from a number of competitors, including large biopharmaceutical

companies. Many therapies are currently available and numerous others are being developed for the treatment of anemia and obesity. Any products that we may develop from our preclinical programs may not be able to compete effectively with existing or future therapies.

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Manufacturing and Supply

We do not have any manufacturing facilities and do not intend to develop any manufacturing capabilities. We believe that we currently possess sufficient VK5211 and VK2809 drug substance to allow for completion of our planned VK5211 and VK2809 Phase 2 clinical trials. Bulk active pharmaceutical ingredient, or API, and certain dosage forms are currently in storage in compliance with cGMP requirements. We believe that a majority of the existing API will be suitable for formulation into clinical trial material. We also have identified multiple contract manufacturers to provide commercial supplies of the formulated drug candidates if they are approved for marketing. We intend to secure contract manufacturers with established track records of quality product supply and significant experience with the regulatory requirements of the FDA and EMA.

Our History

We were incorporated under the laws of the State of Delaware on September 24, 2012. Since our incorporation, we have devoted substantially all of our efforts to raising capital, building infrastructure, obtaining the worldwide rights to certain technology from Ligand, including VK5211, VK2809 and VK0612, and more recently following the IPO to planning, preparing for and commencing certain preclinical studies and clinical trials of our drug candidates. Each of our programs is based on small molecules licensed from Ligand pursuant to our Master License Agreement with Ligand, which we entered into on May 21, 2014.

Agreements with Ligand

Master License Agreement

On May 21, 2014, we entered into a Master License Agreement, as amended on each of September 6, 2014 and April 8, 2015, or the Master License Agreement, with Ligand pursuant to which, among other things, Ligand granted to us and our affiliates an exclusive, perpetual, irrevocable, worldwide, royalty-bearing right and license under (1) patents related to (a) our VK5211 program and any other compounds comprised by specified SARM patents and derivatives of such compounds, or SARM Compounds, (b) our VK2809 and VK0214 programs and any other compounds comprised by specified TRß patents and any derivatives of such compounds, or TRß Compounds, (c) our VK0612 program and any other compounds comprised by specified FBPase patents and derivatives of such compounds, or FBPase Compounds, (d) our EPOR program and any other compounds comprised by specified EPOR patents and derivatives of such compounds, or EPOR Compounds, and (e) our DGAT-1 program and any other compounds comprised by specified DGAT-1 patents and derivatives of such compounds, or DGAT-1 Compounds; (2) related know-how controlled by Ligand; and (3) physical quantities of SARM, TRß, FBPase, EPOR and DGAT-1 Compounds, or, collectively, the Licensed Technology, to research, develop, manufacture, have manufactured, use and commercialize the Licensed Technology in and for all therapeutic and diagnostic uses in humans or animals. We have the right to sublicense these rights in certain circumstances. Pursuant to the terms of the Master License Agreement, we have the exclusive right and sole responsibility and decision-making authority for researching and developing any pharmaceutical products that contain or comprise one or any combination of a SARM Compound, TRß Compound, FBPase Compound, EPOR Compound or DGAT-1 Compound, or, collectively, the Licensed Products. We also have the exclusive right and sole responsibility and decision-making authority to conduct all clinical trials and preclinical studies that we believe are appropriate to obtain the regulatory approvals necessary for commercialization of the Licensed Products, and we will own and maintain all regulatory filings and all regulatory approvals for the Licensed Products. Additionally, pursuant to the terms of the Master License Agreement, we have the sole decision-making authority and responsibility and the exclusive right to commercialize any of the Licensed Products, either by ourselves or, in certain circumstances, through sublicensees selected by us. We also have the exclusive right to manufacture or have manufactured any Licensed Product ourselves or, in certain circumstances,

through sublicensees or third parties selected by us. We will own any intellectual property that we develop in connection with the license granted under the Master License Agreement.

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As partial consideration for the grant of the rights and licenses to us under the Master License Agreement, we issued to Ligand at the closing of the IPO 3,655,964 shares of our common stock having an estimated aggregate value of $29.2 million. Furthermore, as partial consideration for the grant of the rights and licenses to us under the Master License Agreement, we entered into the Loan and Security Agreement with Ligand (as discussed below).

As further partial consideration for the grant of the rights and licenses to us by Ligand under the Master License Agreement, we have agreed to pay to Ligand certain one-time, non-refundable milestone payments in connection with licensed products containing (1) VK5211 or any other SARM Compound, in an aggregate amount of up to $85.0 million per indication (for up to a total of two indications) upon the achievement of certain development and regulatory milestones and up to $100.0 million upon the achievement of certain sales milestones; (2) VK2809, VK0214 or any other TRß Compound, in an aggregate amount of up to $75.0 million per indication (for up to a total of three indications) upon the achievement of certain development and regulatory milestones and up to $150.0 million upon the achievement of certain sales milestones; (3) VK0612 or any other FBPase Compound, in an aggregate amount of up to $60.0 million per indication (for up to a total of four indications) upon the achievement of certain development and regulatory milestones and up to $150.0 million upon the achievement of certain sales milestones; (4) any EPOR Compound, in an aggregate amount of up to $48.0 million per indication (for up to a total of three indications) upon the achievement of certain development and regulatory milestones and up to $50.0 million upon the achievement of certain sales milestones; and (5) any DGAT-1 Compound, in an aggregate amount of up to $78.0 million per indication (for up to a total of two indications) upon the achievement of certain development and regulatory milestones and up to $150.0 million upon the achievement of certain sales milestones. Additionally, we will pay to Ligand a one-time, non-refundable milestone payment of $2.5 million upon the occurrence of the first commercial sale of VK0612 or any other FBPase Compound by one of our sublicensees. We will also pay to Ligand royalties on aggregate annual worldwide net sales of Licensed Products by us, our affiliates and our sublicensees at tiered percentage rates in the following ranges based upon net sales: (a) upper single digit royalties upon sales of VK5211 or any other SARM Compound, (b) low-to-middle single digit royalties upon sales of VK2809, VK0214 or any other TRß Compound, (c) upper single digit royalties upon sales of VK0612 or any other FBPase Compound, (d) middle-to-upper single digit royalties upon sales of any EPOR Compound, and (e) low-to-middle single digit royalties upon sales of any DGAT-1 Compound; in each case subject to reduction in certain circumstances.

The term of the Master License Agreement will continue unless the agreement is terminated by us or Ligand. Ligand has the right to terminate the Master License Agreement under certain circumstances, including, but not limited to: (1) in the event of our insolvency or bankruptcy; (2) if we do not pay an undisputed amount owing under the Master License Agreement when due and fail to cure such default within a specified period of time; or (3) if we default on certain of our material and substantial obligations and fail to cure the default within a specified period of time. We have the right to terminate the Master License Agreement under certain circumstances, including, but not limited to: (i) if Ligand does not pay an undisputed amount owing under the Master License Agreement when due and fails to cure such default within a specified period of time, or (ii) if Ligand defaults on certain of its material and substantial obligations and fails to cure the default within a specified period of time. In addition, provisions of the Master License Agreement can be terminated on a licensed program-by-program basis under certain circumstances. In the event that the Master License Agreement is terminated in its entirety or with respect to a specific licensed program for any reason: (A) all licenses granted to us under the Master License Agreement (or with respect to the specific licensed program) will terminate and we will, upon Ligand s request (subject to Ligand assuming legal responsibility for any clinical trials of the Licensed Products then ongoing), assign and transfer to Ligand (or to such transferee as Ligand may direct), at no cost to Ligand, all regulatory documentation and all regulatory approvals prepared or obtained by us or on our behalf related to the Licensed Products (or those related to the specific licensed program), or, if Ligand does not make such a request, we will wind down any ongoing clinical trials with respect to the Licensed Products (or those related to the specific licensed program) at no cost to Ligand; (B) we will, upon Ligand s request, sell and transfer to Ligand (or to such transferee as Ligand may direct), at a price equal to 125% of our costs of goods, any and all

chemical, biological or physical materials relating to or comprising the Licensed Products (or those

related to the specific licensed program); (C) we will have, for a period of six months following termination, the right to sell on the normal business terms in existence before such termination any finished commercial inventory of Licensed Products (or those related to the specific licensed program) which remains on hand, so long as we pay to Ligand the applicable royalties and sales milestones; (D) Ligand has the right to require us to assign to Ligand the trademarks owned by us relating to the Licensed Products (or those related to the specific licensed program); and (E) we will grant to Ligand a non-exclusive, worldwide, royalty-bearing sublicensable license under any patent rights and know-how controlled by us to the extent necessary to make, have made, import, use, offer to sell and sell the Licensed Products (or those related to the specific licensed program) anywhere in the world at a royalty rate in the low single digits.

Under the Master License Agreement, we have agreed to indemnify Ligand for claims relating to the performance of our obligations under the Master License Agreement, any breach of the representations and warranties made by us under the Master License Agreement, clinical trials conducted by us and the research, development and commercialization of the Licensed Products by us and our affiliates, sublicensees, distributors and agents. In addition, Ligand has agreed to indemnify us for claims relating to the performance of its obligations under the Master License Agreement, its breach of representations and warranties under the agreement and its research and development of the licensed compounds before the effective date of the Master License Agreement. Each party s indemnification obligations will not apply to the extent the claims result from the negligence or willful misconduct of the indemnified party or any of its employees, agents, officers or directors or from the indemnified party s breach of its representations or warranties set forth in the Master License Agreement.

Loan and Security Agreement

In connection with entering into the Master License Agreement, we entered into a Loan and Security Agreement with Ligand, dated May 21, 2014, as amended on April 8, 2015, or the Loan and Security Agreement, pursuant to which, among other things, Ligand agreed to provide us with loans in the aggregate amount of up to $2.5 million. Pursuant to the Loan and Security Agreement, Ligand loaned us $2.5 million through December 31, 2014. The principal amount outstanding under the loans accrue interest at a fixed per annum rate equal to the lesser of 5% and the maximum interest rate permitted by law. In the event we default under the loans, the loans will accrue interest at a fixed per annum rate equal to the lesser of 8% and the maximum interest rate permitted by law.

Each of the loans is evidenced by a Secured Convertible Promissory Note, or the Ligand Note. Pursuant to the terms of the Loan and Security Agreement and the Ligand Note, the loans will become due and payable upon the written demand of Ligand at any time after the earlier to occur of an event of default under the Loan and Security Agreement or the Note, or May 21, 2016, or the Maturity Date, unless the loans are converted into equity prior to such time. Following the consummation of the earlier to occur of (1) a bona fide capital financing transaction or series of financing transactions with one or more financial non-strategic investors with aggregate net proceeds to us of at least $20.0 million and pursuant to which we issue shares of our equity securities, or a Qualified Private Financing, (2) a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended, or the Securities Act, on Form S-1 or Form S-3, or any successor forms, subsequent to the IPO with an initial aggregate offering size of at least $20.0 million, or a Qualified Follow-on Public Offering, and (3) May 4, 2016, Ligand may elect to (a) receive such number of shares of the type of equity we issue in the Qualified Private Financing, the Qualified Follow-on Public Offering or the IPO equal to 200% of the amount obtained by dividing the entire then-outstanding principal amount of the loans, plus all accrued and previously unpaid interest thereon, by (i) in the case of a Qualified Private Financing, the lowest per share price paid by investors in the Qualified Private Financing or (ii) in the case of a Qualified Follow-on Public Offering or the occurrence of May 4, 2016, the lowest price per share paid by investors in the IPO, (b) require us to prepay an amount equal to 200% of the principal amount of the loans then-outstanding plus all accrued and previously unpaid interest thereon, or the Prepayment, or (c) receive a combination of shares of our

common stock and cash in an amount equal to 200% of the principal amount of the loans then-outstanding, plus all accrued and previously unpaid interest thereon.

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We also granted Ligand a continuing security interest in all of our right, title and interest in and to our assets as collateral for the full, prompt, complete and final payment and performance when due of all obligations under the Loan and Security Agreement and the Ligand Note.

Under the Loan and Security Agreement and the Ligand Note, we are subject to affirmative and negative covenants. We agreed to, among other things, deliver financial statements, forecasts and budget information to Ligand. In addition, we agreed to use the proceeds from the loans solely as working capital and to fund our general business requirements in accordance with our forecast and budget. Under the Loan and Security Agreement and the Ligand Note, we may not take certain actions without Ligand s consent, such as declare or pay dividends, incur or repay certain indebtedness or engage in certain related party transactions. Ligand has the right to transfer the Ligand Note at any time without our permission.

An event of default under the Loan and Security Agreement will be deemed to occur or exist upon the termination of the Master License Agreement; in the event we fail to make principal or interest payments under the Ligand Note when due; if we become insolvent or breach and fail to cure within a specified period of time any representation, warranty, covenant or agreement in the Loan and Security Agreement, the Master License Agreement, the Option Agreement, dated September 27, 2012, by and between us and Ligand, as amended, the Voting Agreement (as defined below) or the Management Rights Letter (as defined below); or upon the occurrence of certain other events.

This offering could constitute a Qualified Follow-On Public Offering under the terms of the Loan and Security Agreement, in which case Ligand would have the option to (1) convert all or a portion of the amounts outstanding under the Ligand Note into shares of our common stock, (2) require us to prepay an amount equal to 200% of the principal amount of the loans then-outstanding plus all accrued and previously unpaid interest thereon, or (3) receive a combination of shares of our common stock and cash. Upon the consummation of a Qualified Follow-On Public Offering, we may be obligated to issue to Ligand (a) an aggregate of 663,090 shares of our common stock, (b) cash in the amount of $5,304,722, or (c) a combination of shares of our common stock and cash in an amount equal to $5,304,722, in each case based on $2,652,361 of principal and interest outstanding under the Ligand Note as of September 30, 2015, and the Loan and Security Agreement and the Ligand Note would terminate in their entirety.

Management Rights Letter

As a condition to entering into the Master License Agreement, the Loan and Security Agreement and the Ligand Note, we entered into a Management Rights Letter with Ligand, dated as of May 21, 2014, or the Management Rights Letter. Pursuant to the Management Rights Letter, we agreed to: (1) expand the size of our board of directors so as to create one new directorship on our board of directors, and (2) appoint an individual named by Ligand, or the Ligand Director, to fill the newly-created directorship. Pursuant to the terms of the Management Rights Letter, the Ligand Director is entitled to receive the same compensation, including cash payments and equity incentive grants, as is provided to our other directors; however, the Ligand Director is not entitled to receive the compensation provided to our directors in their capacity as members of a committee of our board of directors. Furthermore, we agreed to provide Ligand with advance written notice of the date of the annual meeting of our stockholders for each year in which the Ligand Director is up for election so as to permit Ligand to designate the Ligand Director for election at such annual meeting, and to nominate the Ligand Director to our board of directors at each such annual meeting of our stockholders. In addition, under the Management Rights Letter, we granted Ligand certain contractual management rights in the event Ligand is not represented on our board of directors, including the right to consult with us and offer advice to our management on significant business issues and the right to receive copies of all notices, minutes, consents and other material that we provide to our directors, subject to certain exceptions. We also agreed that, upon the consummation of the IPO, we would appoint a Chairperson of our board of directors who is independent under applicable SEC rules and the rules and listings standards of The Nasdaq Stock Market LLC, or the Nasdaq Rules. In

accordance with the terms of the Management Rights Letter, Matthew W. Foehr was appointed to our board of directors as the Ligand Director

and Lawson Macartney, DVM, Ph.D. was appointed Chairperson of our board of directors. The Management Rights Letter will terminate upon the earliest to occur of: (a) the liquidation, dissolution or indefinite cessation of our business operations; (b) the execution by us of a general assignment for the benefit of creditors or the appointment of a receiver or trustee to take possession of our property and assets; (c) an acquisition of us by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation) if our stockholders of record as constituted immediately prior to such transaction hold less than 50% of the voting power of the surviving or acquiring entity; (d) the date that Ligand and its affiliates collectively cease to beneficially own at least 7.5% of our outstanding voting stock; or (e) May 21, 2024.

Voting Agreement

In connection with the terms of the Management Rights Letter, we, Ligand, Brian Lian, Ph.D., and Michael Dinerman, M.D., our former Chief Operating Officer, entered into a Voting Agreement dated as of May 21, 2014, or the Voting Agreement, pursuant to which each of Ligand, Dr. Lian and Dr. Dinerman agreed to vote all of his or its shares of our voting securities so as to elect the Ligand Director as a member of our board of directors, and, if requested by Ligand, to vote in favor of any removal of the Ligand Director or selection of a new Ligand Director. The Voting Agreement will terminate under the same circumstances in which the Management Rights Letter will terminate.

Registration Rights Agreement

As a condition to the parties entering into the Master License Agreement and the Loan and Security Agreement, we entered into a Registration Rights Agreement, dated May 21, 2014, with Ligand, or the Registration Rights Agreement, pursuant to which we granted certain registration rights to Ligand with respect to (1) the securities issued by us to Ligand pursuant to the Master License Agreement and the securities issuable by us to Ligand pursuant to the Ligand Note, or, collectively, the Viking Securities, (2) the shares of our common stock issued or issuable upon conversion of the Viking Securities, if applicable, and (3) the shares of our common stock issued as a dividend or other distribution with respect to, in exchange for or in replacement of the Viking Securities, or, collectively, the Registrable Securities.

Mandatory Resale Registration Rights

Pursuant to the Registration Rights Agreement, we have agreed that we will file with the SEC, by no later than January 23, 2016, a Registration Statement on Form S-1 under the Securities Act that covers the resale of the full amount of the Registrable Securities. We are obligated to use commercially reasonable efforts to have the Registration Statement declared effective by the SEC as soon as practicable after it is filed with the SEC, but in no event later than (1) in the event the SEC Staff does not review the Registration Statement, March 23, 2016 or (2) in the event the SEC Staff reviews the Registration Statement, May 22, 2016. If we do not file a Registration Statement for the resale of the Registrable Securities within the requisite time period, if such Registration Statement is not declared effective by the SEC Staff by a certain date, or if, on any day after the Registration Statement is declared effective by the SEC Staff, sales of all of the Registrable Securities required to be included in the Registration Statement cannot be made pursuant to the Registration Statement, then we will, subject to certain exceptions, be obligated to pay to Ligand an amount in cash equal to 1% of the aggregate value of the Registrable Securities, measured as of the date of their issuance, on the day of such failure or ineffectiveness of, or inability to use, the Registration Statement and on every thirtieth day thereafter (pro-rated for partial periods) until such failure or ineffectiveness of, or inability to use, the Registration Statement is cured; up to a maximum of 5% of the aggregate value of the Registrable Securities, measured as of the date of their issuance.

Pursuant to the Registration Rights Agreement, in the event the SEC Staff takes the position that the registration of some or all of the Registrable Securities is not eligible to be made on a delayed or continuous basis under the provisions of Rule 415 under the Securities Act, or would require Ligand to be named as an underwriter in the Registration Statement, we have agreed to use our commercially reasonable efforts to persuade the SEC Staff

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that the offering contemplated by the Registration Statement is a valid secondary offering, is not made by or on behalf of the issuer (as defined in Rule 415 under the Securities Act) and that Ligand is not an underwriter for purposes of the registration. If the SEC Staff does not agree with our proposal, we will remove from the Registration Statement the portion of the Registrable Securities, and/or we and Ligand will agree to certain restrictions and limitations on the registration and resale of the Registrable Securities, as the SEC Staff may require to ensure the registration complies with Rule 415 under the Securities Act. In the event the SEC Staff imposes restrictions or limitations on the registration and resale of the Registrable Securities, then any amounts that we would be obligated to pay to Ligand as a result of the failure or ineffectiveness of, or inability to use, the Registration Statement, will not accrue until a certain period of time after the date that we determine we are able to effect the registration of such Registrable Securities in accordance with SEC rules and regulations.

Pursuant to the terms of the Registration Rights Agreement, we also agreed to use our commercially reasonable efforts to keep each Registration Statement filed pursuant to the agreement effective with respect to all Registrable Securities until the earlier of (1) the date on which all shares of Registrable Securities may immediately be sold under Rule 144, as promulgated by the SEC under the Securities Act, or Rule 144, during any 90-day period, or (2) the date on which all of the Registrable Securities covered by the Registration Statement that are held by Ligand are sold.

Additionally, we have the right during certain periods after the effective date of the Registration Statement covering the resale of the Registrable Securities, to delay the disclosure of material, non-public information if, in the good faith opinion of our board of directors, it is not in our best interests to disclose the information. In addition, we have the ability to prohibit sales under the Registration Statement during certain periods, subject to certain limitations.

Form S-3 Registration Rights

The Registration Rights Agreement also provides that after the IPO, we will use our commercially reasonable efforts to qualify for the use of Form S-3 for purposes of registering the issuance and/or resale of the Registrable Securities. Once we have qualified for the use of Form S-3, we have agreed to convert the Registration Statement on Form S-1 that is initially to be filed to register the resale of the Registrable Securities into a Registration Statement on Form S-3.

Limitation on Registration Rights

Pursuant to the terms of the Registration Rights Agreement, we have agreed that we will not, except with Ligand s prior written consent, from and after the date of the Registration Rights Agreement and prior to the date the Registration Statement covering the resale of the full amount of the Registrable Securities is declared effective by the SEC, enter into an agreement with another holder or prospective holder of our securities which provides demand registration rights that are more favorable than the registration rights provided to Ligand under the Registration Rights Agreement.

Termination of Registration Rights

Ligand s registration rights terminate upon the earlier of (1) the date on which all shares of Registrable Securities may immediately be sold under Rule 144 during any 90-day period, or (2) the date on which all of the Registrable Securities covered by the Registration Statement that are held by Ligand are sold.

Expenses

We will bear all registration expenses in connection with the mandatory resale registration rights granted pursuant to the Registration Rights Agreement, including but not limited to all registration, qualification and filing fees, except

that we will not be required to pay selling expenses, fees and disbursements of counsel for the holders of our capital stock other than the fees and disbursements of one special counsel in an amount of up to $20,000.

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Representative s Warrant Registration Rights

Upon the closing of the IPO, on May 4, 2015, we issued to the representative of the underwriters in the IPO as additional compensation a warrant to purchase an aggregate of 82,500 shares of our common stock, or the Representative s Warrant.

Demand Registration Rights

Pursuant to the terms of the Representative s Warrant, we are obligated, upon the written demand of the holders of at least 51% of the shares issuable upon exercise of the Representative s Warrant, or the Registrable Warrant Shares, to register all or a portion of the Registrable Warrant Shares, on one occasion. Upon our receipt of a written demand notice, we must file a registration statement with the SEC covering the Registrable Warrant Shares within 60 days and use our commercially reasonable efforts to have the registration statement declared effective promptly thereafter. The holder of the Representative s Warrant may exercise this demand registration right at any time from April 28, 2016 until April 28, 2020. However, we will not be required to register any Registrable Warrant Shares that are the subject of a then-effective registration statement. Additionally, we will not be obligated to file a registration statement in connection with a demand notice if the holder of the Registrable Warrant Shares is entitled to certain piggyback registration rights.

To the extent we file a registration statement in connection with the demand registration rights granted under the Representative s Warrant, we have agreed to keep the registration statement effective until the earlier of (1) the one year anniversary of the effective date of the registration statement or (2) the date when all Registrable Warrant Shares covered by the registration statement have been sold.

Piggyback Registration Rights

Pursuant to the terms of the Representative s Warrant, we have also agreed to provide the holder of the Registrable Warrant Shares with certain piggyback registration rights. Until April 28, 2022, the holder of the Registrable Warrant Shares has a right to include all or any portion of the Registrable Warrant Shares in a registration statement filed by us, subject to certain exceptions. However, we will not be required to register any Registrable Warrant Shares that are the subject of a then-effective registration statement.

Expenses

We will pay all fees and expenses incurred in registering the Registrable Warrant Shares, but the holder of the Registrable Warrant Shares will pay any and all underwriting commissions and the expenses of any legal counsel selected by the holder of the Registrable Warrant Shares to represent it in connection with the sale of the Registrable Warrant Shares.

Research Services Agreement with the Academic Medical Center at the University of Amsterdam

Effective January 27, 2015, we entered into a Research Services Agreement with the Academic Medical Center at the University of Amsterdam, or the Academic Medical Center, pursuant to which the Academic Medical Center agreed to perform from time to time certain research projects for us on a series of one or more compounds. Following completion of its research under the agreement, the Academic Medical Center will provide us with a report of the results of each study performed. We will solely own all right, title and interest in the results of the research services. As compensation for its services, and after our acceptance of the applicable services, we will be obligated to pay to the Academic Medical Center the amount set forth in the Statement of Work relating to the specific research project.

Under the Research Services Agreement, we have agreed to indemnify the Academic Medical Center for claims relating to any breach of our obligations under the agreement, the inaccuracy or breach of any representation or

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warranty made by us under the agreement, any material damages or personal injury or death resulting from our use of the results obtained under the research services or the enforcement of the Academic Medical Center s rights to indemnification under the agreement. Additionally, the Academic Medical Center has agreed to indemnify us for claims relating to any breach of its obligations under the Research Services Agreement, the inaccuracy or breach of any representation or warranty made by it under the Research Services Agreement or the enforcement of our rights to indemnification under the terms of the agreement. Each party s indemnification obligations are subject to certain exceptions.

The Research Services Agreement will remain in effect until the later of (1) January 27, 2016 or (2) the end date provided for in the last Statement of Work to be executed under the agreement. We have the right to terminate the Research Services Agreement, or any Statement of Work under the agreement, at any time, with or without cause, upon 30 days written notice to the Academic Medical Center. We may also immediately terminate the Research Services Agreement if the Academic Medical Center (a) fails to comply with its obligations with respect to the materials provided by us under the Research Services Agreement or any related Statement of Work or (b) breaches any provision relating to our ownership of all results of the research services. Additionally, either we or the Academic Medical Center may terminate the Research Services Agreement or any related Statement of Work if the other party materially breaches the agreement or any Statement of Work and fails to cure the breach within 30 days following notice from the non-breaching party.

Upon termination of the Research Services Agreement, the Academic Medical Center will immediately cease performing services for us under the agreement. Upon our termination of the Research Services Agreement, and if we have performed all of our material obligations under the agreement, the Academic Medical Center will provide us with a report detailing all results and services performed through the effective date of termination.

We entered into one Statement of Work under the Research Services Agreement, pursuant to which the Academic Medical Center evaluated the ability of our proprietary TRß agonists, including VK2809 and VK0214, to induce ABCD2 expression in both control cell lines and in cells from X-ALD patients. This Statement of Work has been completed. We may enter into an additional Statement of Work under the Research Services Agreement in 2016.

Government Regulation

FDA Regulation and Marketing Approval

In the U.S., the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act of 1938, as amended, or FDCA, and related regulations. Drugs are also subject to other federal, state and local statutes and regulations. Failure to comply with the applicable U.S. regulatory requirements at any time during the drug development process, approval process or after approval may subject an applicant to administrative or judicial sanctions and non-approval of drug candidates. These sanctions could include the imposition by the FDA or an Institutional Review Board, or IRB, of a clinical hold on clinical trials, the FDA s refusal to approve pending applications or related supplements, withdrawal of an approval, untitled or warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, restitution, disgorgement, civil penalties or criminal prosecution. Such actions by government agencies could also require us to expend a large amount of resources to respond to the actions. Any agency or judicial enforcement action could have a material adverse effect on us.

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture and marketing of pharmaceutical products.

These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, labeling, packaging, storage, distribution, record-

keeping, approval, post-approval monitoring, advertising, promotion, sampling and import and export of our products. Our drugs must be approved by the FDA through the new drug application, or NDA, process before they may be legally marketed in the U.S. See the section of this prospectus entitled The NDA Approval Process .

The process required by the FDA before drugs may be marketed in the U.S. generally involves the following:

- completion of non-clinical laboratory tests, animal studies and formulation studies conducted according to good laboratory practice or other applicable regulations;
- submission of an IND, which allows clinical trials to begin unless the FDA objects within 30 days;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the proposed drug for its intended use or uses conducted in accordance with FDA regulations, good clinical practices, or GCP, which are international ethical and scientific quality standards meant to assure that the rights, safety and well-being of trial participants are protected, and to define the roles of clinical trial sponsors, administrators and monitors and to assure clinical trial data integrity;
- pre-approval inspection of manufacturing facilities and clinical trial sites; and
- FDA approval of an NDA, which must occur before a drug can be marketed or sold.

IND and Clinical Trials

Prior to commencing the first clinical trial, an IND, which contains the results of preclinical studies along with other information, such as information about product chemistry, manufacturing and controls and a proposed protocol, must be submitted to the FDA. The IND automatically becomes effective 30 days after receipt by the FDA unless the FDA within the 30-day time period raises concerns or questions about the conduct of the clinical trial. In such a case, the IND sponsor must resolve any outstanding concerns with the FDA before the clinical trial may begin. A separate submission to the existing IND must be made for each successive clinical trial to be conducted during drug development. Further, an independent IRB for each site proposing to conduct the clinical trial must review and approve the investigational plan for any clinical trial before it commences at that site. Informed written consent must also be obtained from each trial subject. Regulatory authorities, including the FDA, an IRB, a data safety monitoring board or the sponsor, may suspend or terminate a clinical trial at any time on various grounds, including a finding that the participants are being exposed to an unacceptable health risk or that the clinical trial is not being conducted in accordance with FDA requirements.

For purposes of NDA approval, human clinical trials are typically conducted in sequential phases that may overlap:

- *Phase 1* the drug is initially given to healthy human subjects or patients in order to determine metabolism and pharmacologic actions of the drug in humans, side effects and, if possible, to gain early evidence on effectiveness. During Phase 1 clinical trials, sufficient information about the investigational drug s

pharmacokinetics and pharmacologic effects may be obtained to permit the design of well-controlled and scientifically valid Phase 2 clinical trials.

Phase 2 clinical trials are conducted to evaluate the effectiveness of the drug for a particular indication or in a limited number of patients in the target population to identify possible adverse effects and safety risks, to determine the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase 3 clinical trials. Throughout this

prospectus, we refer to our initial Phase 2 clinical trials as Phase 2a clinical trials and our subsequent Phase 2 clinical trials as Phase 2b clinical trials.

Phase 3 when Phase 2 clinical trials demonstrate that a dosage range of the product appears effective and has an acceptable safety profile, and provide sufficient information for the design of Phase 3 clinical trials, Phase 3 clinical trials in an expanded patient population at multiple clinical sites may be undertaken. They are performed after preliminary evidence suggesting effectiveness of the drug has been obtained, and are intended to further evaluate dosage, effectiveness and safety, to establish the overall benefit-risk relationship of the investigational drug and to provide an adequate basis for product labeling and approval by the FDA. In most cases, the FDA requires two adequate and well-controlled Phase 3 clinical trials to demonstrate the efficacy of the drug in an expanded patient population at multiple clinical trial sites.

All clinical trials must be conducted in accordance with FDA regulations, GCP requirements and their protocols in order for the data to be considered reliable for regulatory purposes.

An investigational drug product that is a combination of two different drugs in the same dosage form must comply with an additional rule that requires that each component make a contribution to the claimed effects of the drug product. This typically requires larger studies that test the drug against each of its components. In addition, typically, if a drug product is intended to treat a chronic disease, as is the case with our products, safety and efficacy data must be gathered over an extended period of time, which can range from six months to three years or more. Government regulation may delay or prevent marketing of drug candidates or new drugs for a considerable period of time and impose costly procedures upon our activities.

Disclosure of Clinical Trial Information

Sponsors of clinical trials of FDA-regulated products, including drugs, are required to register and disclose certain clinical trial information. Information related to the product, patient population, phase of investigation, study sites and investigators, and other aspects of the clinical trial, is then made public as part of the registration. Sponsors are also obligated to discuss the results of their clinical trials after completion. Disclosure of the results of these trials can be delayed until the new product or new indication being studied has been approved. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

The NDA Approval Process

In order to obtain approval to market a drug in the U.S., a marketing application must be submitted to the FDA that provides data establishing to the FDA s satisfaction the safety and effectiveness of the investigational drug for the proposed indication. Each NDA submission requires a substantial user fee payment (currently exceeding $2.1 million for fiscal year 2014) unless a waiver or exemption applies. The application includes all relevant data available from pertinent non-clinical studies, or preclinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product s chemistry, manufacturing, controls and proposed labeling, among other things. Data can come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of a product, or from a number of alternative sources, including studies initiated by investigators that meet GCP requirements.

During the development of a new drug, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2 clinical trials, and before an NDA is submitted. Meetings at other times may be requested. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice and for the sponsor and the FDA to reach

agreement on the next phase of development. Sponsors typically use the end-of-Phase 2 clinical

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trials meetings to discuss their Phase 2 clinical trials results and present their plans for the pivotal Phase 3 registration trial that they believe will support approval of the new drug.

Concurrent with clinical trials, companies usually complete additional preclinical safety studies and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for the NDA sponsor s manufacturing the product in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and the manufacturer must develop methods for testing the identity, strength, quality and purity of the final drugs. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf-life.

The results of drug development, non-clinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the chemistry of the drug, proposed labeling and other relevant information are submitted to the FDA as part of an NDA requesting approval to market the product. The FDA reviews all NDAs submitted to ensure that they are sufficiently complete for substantive review before it accepts them for filing. It may request additional information rather than accept an NDA for filing. In this event, the NDA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. The FDA has 60 days from its receipt of an NDA to conduct an initial review to determine whether the application will be accepted for filing based on the FDA s threshold determination that the application is sufficiently complete to permit substantive review. If the NDA submission is accepted for filing, the FDA reviews the NDA to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMP to assure and preserve the product s identity, strength, quality and purity. The FDA has agreed to specific performance goals on the review of NDAs and seeks to review standard NDAs within 12 months from submission of the NDA. The review process may be extended by the FDA for three additional months to consider certain late submitted information or information intended to clarify information already provided in the submission. After the FDA completes its initial review of an NDA, it will communicate to the sponsor that the drug will either be approved, or it will issue a complete response letter to communicate that the NDA will not be approved in its current form and inform the sponsor of changes that must be made or additional clinical, non-clinical or manufacturing data that must be received before the application can be approved, with no implication regarding the ultimate approvability of the application or the timing of any such approval, if ever. If, or when, those deficiencies have been addressed to the FDA s satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two to six months depending on the type of information included. The FDA may refer applications for novel drug products or drug products that present difficult questions of safety or effectiveness to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and, if so, under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical sites to assure compliance with GCP regulations. If the FDA determines the application, manufacturing process or manufacturing facilities are not acceptable, it typically will outline the deficiencies and often will request additional testing or information. This may significantly delay further review of the application. If the FDA finds that a clinical site did not conduct the clinical trial in accordance with GCP regulations, the FDA may determine the data generated by the clinical site should be excluded from the primary efficacy analyses provided in the NDA. Additionally, notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the

application does not satisfy the regulatory criteria for approval.

The FDA may require, or companies may pursue, additional clinical trials after a product is approved. These so-called Phase 4 or post-approval clinical trials may be made a condition to be satisfied for continuing drug

approval. The results of Phase 4 clinical trials can confirm the effectiveness of a drug candidate and can provide important safety information. In addition, the FDA now has express statutory authority to require sponsors to conduct post-marketing trials to specifically address safety issues identified by the agency. See the section of this prospectus entitled Post-Marketing Requirements .

The FDA also has authority to require a Risk Evaluation and Mitigation Strategy, or a REMS, from manufacturers to ensure that the benefits of a drug outweigh its risks. A sponsor may also voluntarily propose a REMS as part of the NDA submission. The need for a REMS is determined as part of the review of the NDA. Based on statutory standards, elements of a REMS may include dear doctor letters, a medication guide, more elaborate targeted educational programs, and in some cases elements to assure safe use, or ETASU, which is the most restrictive REMS. ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring and the use of patient registries. These elements are negotiated as part of the NDA approval, and in some cases if consensus is not obtained until after the Prescription Drug User Fee Act of 1992, as amended, review cycle, the approval date may be delayed. Once adopted, REMS are subject to periodic assessment and modification.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Even if a drug candidate receives regulatory approval, the approval may be limited to specific disease states, patient populations and dosages, or might contain significant limitations on use in the form of warnings, precautions or contraindications, or in the form of onerous risk management plans, restrictions on distribution or post-marketing trial requirements. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market. Delay in obtaining, or failure to obtain, regulatory approval for our products, or obtaining approval but for significantly limited use, would harm our business. In addition, we cannot predict what adverse governmental regulations may arise from future U.S. or foreign governmental action.

The Hatch-Waxman Amendments

Under the Drug Price Competition and Patent Term Restoration Act of 1984, as amended, commonly known as the Hatch-Waxman Amendments, a portion of a product s U.S. patent term that was lost during clinical development and regulatory review by the FDA may be restored. The Hatch-Waxman Amendments also provide a process for listing patents pertaining to approved products in the FDA s Approved Drug Products with Therapeutic Equivalence Evaluations (commonly known as the Orange Book) and for a competitor seeking approval of an application that references a product with listed patents to make certifications pertaining to such patents. In addition, the Hatch-Waxman Amendments provide for a statutory protection, known as non-patent exclusivity, against the FDA s acceptance or approval of certain competitor applications.

Patent Term Restoration

Patent term restoration can compensate for time lost during drug development and the regulatory review process by returning up to five years of patent life for a patent that covers a new product or its use. This period is generally one-half the time between the effective date of an IND (falling after issuance of the patent) and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application, provided the

sponsor acted with diligence. Patent term restorations, however, cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended and the extension must be applied for prior to expiration of the

patent. The United States Patent and Trademark Office, or the USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration.

Orange Book Listing

In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent whose claims cover the applicant s product. Upon approval of a drug, each of the patents listed by the NDA holder listed in the drug s application or otherwise are then published in the FDA s Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential generic competitors in support of approval of an abbreviated new drug application, or ANDA. An ANDA provides for marketing of a drug product that has the same active ingredients in the same strengths and dosage form as the listed drug and has been shown through bioequivalence testing to be therapeutically equivalent to the listed drug. Other than the requirement for bioequivalence testing, ANDA applicants are not required to conduct, or submit results of, preclinical studies or clinical trials to prove the safety or effectiveness of their drug product. Drugs approved in this way are commonly referred to as generic equivalents to the listed drug, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

The ANDA applicant is required to certify to the FDA concerning any patents listed for the approved product in the FDA s Orange Book. Specifically, the applicant must certify that: (1) the required patent information has not been filed; (2) the listed patent has expired; (3) the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or (4) the listed patent is invalid or will not be infringed by the new product. The ANDA applicant may also elect to submit a Section VIII statement certifying that its proposed ANDA label does not contain (or carves out) any language regarding the patented method-of-use rather than certify to a listed method-of-use patent. If the applicant does not challenge the listed patents, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired.

A certification that the new product will not infringe the already approved product s listed patents, or that such patents are invalid, is called a Paragraph IV certification. If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days of the receipt of a Paragraph IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the ANDA applicant.

An applicant submitting an NDA under Section 505(b)(2) of the FDCA, which permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by, or for, the applicant and for which the applicant has not obtained a right of reference, is required to certify to the FDA regarding any patents listed in the Orange Book for the approved product it references to the same extent that an ANDA applicant would.

Market Exclusivity

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the U.S. to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not accept for review an ANDA or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after

four years if it contains a Paragraph IV certification. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new

clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, for new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA; however, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the non-clinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Post-Marketing Requirements

Following approval of a new product, a pharmaceutical company and the approved product are subject to continuing regulation by the FDA, including, among other things, monitoring and record-keeping activities, reporting to the applicable regulatory authorities of adverse experiences with the product, providing the regulatory authorities with updated safety and efficacy information, product sampling and distribution requirements, and complying with promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting drugs for uses or in patient populations that are not described in the drug s approved labeling (known as off-label use), limitations on industry-sponsored scientific and educational activities and requirements for promotional activities involving the internet, including social media. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses. Modifications or enhancements to the product or its labeling or changes of the site of manufacture are often subject to the approval of the FDA and other regulators, who may or may not grant approval, or may include in a lengthy review process.

Prescription drug advertising is subject to federal, state and foreign regulations. In the U.S., the FDA regulates prescription drug promotion, including direct-to-consumer advertising. Prescription drug promotional materials must be submitted to the FDA in conjunction with their first use. Any distribution of prescription drug products and pharmaceutical samples must comply with the U.S. Prescription Drug Marketing Act of 1987, as amended, or the PDMA, a part of the FDCA.

In the U.S., once a product is approved, its manufacture is subject to comprehensive and continuing regulation by the FDA. The FDA regulations require that products be manufactured in specific, approved facilities and in accordance with cGMP. We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products in accordance with cGMP regulations. cGMP regulations require, among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation and the obligation to investigate and correct any deviations from cGMP. Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance. These regulations also impose certain organizational, procedural and documentation requirements with respect to manufacturing and quality assurance activities. NDA holders using contract manufacturers, laboratories or packagers are responsible for the selection and monitoring of qualified firms and, in certain circumstances, qualified suppliers to these firms. These firms and, where applicable, their suppliers are subject to inspections by the FDA at any time, and the discovery of violative conditions, including failure to conform to cGMP, could result in enforcement actions that interrupt the operation of any such product or may result in restrictions on a product, manufacturer, or holder of an approved NDA, including, among other things, recall or withdrawal of the product from the market.

In addition, the manufacturer or sponsor under an approved NDA is subject to annual product and establishment fees, currently exceeding $114,450 per product and $585,200 per establishment for fiscal year 2016. These fees are

typically increased annually.

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The FDA also may require post-marketing testing, also known as Phase 4 testing, REMS to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product. Discovery of previously unknown problems with a product or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, untitled or warning letters from the FDA, mandated corrective advertising or communications with doctors, withdrawal of approval, and civil or criminal penalties, among others. Newly-discovered or developed safety or effectiveness data may require changes to a product s approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures. Also, new government requirements, including those resulting from new legislation, may be established, or the FDA s policies may change, which could delay or prevent regulatory approval of our products in development.

Reimbursement, Anti-Kickback and False Claims Laws and Other Regulatory Matters

In the U.S., the research, manufacturing, distribution, sale and promotion of drug products and medical devices are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare & Medicaid Services, or CMS, other divisions of the U.S. Department of Health and Human Services (*e.g.* , the Office of Inspector General), the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency, state Attorneys General and other state and local government agencies. For example, sales, marketing and scientific/educational grant programs must comply with the federal Anti-Kickback Statute, the federal False Claims Act of 1986, as amended, or the federal False Claims Act, the privacy regulations promulgated under the Health Insurance Portability and Accountability Act of 1996, as amended, or HIPAA, and similar state laws. Pricing and rebate programs must comply with the Medicaid Drug Rebate Program requirements of the Omnibus Budget Reconciliation Act of 1990, as amended, and the Veterans Health Care Act of 1992, as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. The handling of any controlled substances must comply with the U.S. Controlled Substances Act and Controlled Substances Import and Export Act. Products must meet applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the MMA, established the Medicare Part D program to provide a voluntary prescription drug benefit to Medicare beneficiaries. Under Part D, Medicare beneficiaries may enroll in prescription drug plans offered by private entities which will provide coverage of outpatient prescription drugs. Unlike Medicare Part A and B, Part D coverage is not standardized. Part D prescription drug plan sponsors are not required to pay for all covered Part D drugs, and each drug plan can develop its own drug formulary that identifies which drugs it will cover and at what tier or level. However, Part D prescription drug formularies must include drugs within each therapeutic category and class of covered Part D drugs, though not necessarily all the drugs in each category or class. Any formulary used by a Part D prescription drug plan must be developed and reviewed by a pharmacy and therapeutic committee. Government payment for some of the costs of prescription drugs may increase demand for products for which we receive regulatory approval. However, any negotiated prices for our products covered by a Part D prescription drug plan will likely be lower than the prices we might otherwise obtain. Moreover, while the MMA applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own payment rates. Any reduction in payment that results from the MMA may result in a similar reduction in payments from non-government payors.

The distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, storage and security requirements intended to prevent the unauthorized sale of

pharmaceutical products.

The American Recovery and Reinvestment Act of 2009 provides funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research will be developed by the

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Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures will be made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of our drug candidate, if any such product or the condition that it is intended to treat is the subject of a clinical trial. It is also possible that comparative effectiveness research demonstrating benefits in a competitor s product could adversely affect the sales of our drug candidate. If third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after approval as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the European Union do not follow price structures of the U.S. and generally tend to be priced significantly lower than in the U.S.

As noted above, in the U.S., we are subject to complex laws and regulations pertaining to healthcare fraud and abuse, including, but not limited to, the federal Anti-Kickback Statute, the federal False Claims Act, and other state and federal laws and regulations. The federal Anti-Kickback Statute makes it illegal for any person, including a prescription drug manufacturer, or a party acting on its behalf, to knowingly and willfully solicit, receive, offer, or pay any remuneration that is intended to induce the referral of business, including the purchase, order or prescription of a particular drug, or other good or service for which payment in whole or in part may be made under a federal healthcare program, such as Medicare or Medicaid. Violations of this law are punishable by up to five years in prison, criminal fines, administrative civil money penalties, and exclusion from participation in federal healthcare programs. In addition, many states have adopted laws similar to the federal Anti-Kickback Statute. Some of these state prohibitions apply to the referral of patients for healthcare services reimbursed by any insurer, not just federal healthcare programs such as Medicare and Medicaid. Due to the breadth of these federal and state anti-kickback laws, the absence of guidance in the form of regulations or court decisions, and the potential for additional legal or regulatory change in this area, it is possible that our future sales and marketing practices or our future relationships with medical professionals might be challenged under anti-kickback laws, which could harm us. Because we intend to commercialize products that could be reimbursed under a federal healthcare program and other governmental healthcare programs, we plan to develop a comprehensive compliance program that establishes internal controls to facilitate adherence to the rules and program requirements to which we will or may become subject.

The federal False Claims Act prohibits anyone from knowingly presenting, or causing to be presented, for payment to federal programs (including Medicare and Medicaid) claims for items or services, including drugs, that are false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services. Although we would not submit claims directly to payors, manufacturers can be held liable under these laws if they are deemed to cause the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label. In addition, our future activities relating to the reporting of wholesaler or estimated retail prices for our products, the reporting of prices used to calculate Medicaid rebate information and other information affecting federal, state and third-party reimbursement for our products, and the sale and marketing of our products, are subject to scrutiny under this law. For example, pharmaceutical companies have been found liable under the federal False Claims Act in connection with their off-label promotion of drugs.

Penalties for a federal False Claims Act

violation include three times the actual damages sustained by the government, plus mandatory civil penalties of between $5,500 and $11,000 for each separate false claim, the potential for exclusion from participation in federal healthcare programs and, although the federal False Claims Act is a civil statute, conduct that results in a federal False Claims Act violation may also implicate various federal criminal statutes. If the government were to allege that we were, or convict us of, violating these false claims laws, we could be subject to a substantial fine and may suffer a decline in our stock price. In addition, private individuals have the ability to bring actions under the federal False Claims Act and certain states have enacted laws modeled after the federal False Claims Act.

There are also an increasing number of state laws that require manufacturers to make reports to states on pricing and marketing information. Many of these laws contain ambiguities as to what is required to comply with the laws. In addition, as discussed below, beginning in 2013, a similar federal requirement requires manufacturers to track and report to the federal government certain payments made to physicians and teaching hospitals in the previous calendar year. These laws may affect our sales, marketing and other promotional activities by imposing administrative and compliance burdens on us. In addition, given the lack of clarity with respect to these laws and their implementation, our reporting actions could be subject to the penalty provisions of the pertinent state, and soon federal, authorities.

The failure to comply with regulatory requirements subjects companies to possible legal or regulatory action. Depending on the circumstances, failure to meet applicable regulatory requirements can result in criminal prosecution, fines or other penalties, injunctions, recall or seizure of products, total or partial suspension of production, denial or withdrawal of product approvals, or refusal to allow a company to enter into supply contracts, including government contracts.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example: (1) changes to our manufacturing arrangements; (2) additions or modifications to product labeling; (3) the recall or discontinuation of our products; or (4) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business.

Patient Protection and Affordable Care Act

In March 2010, the Patient Protection and Affordable Care Act, or the PPACA, was enacted, which includes measures that have or will significantly change the way healthcare is financed by both governmental and private insurers. Among the provisions of the PPACA of greatest importance to the pharmaceutical industry are the following:

The Medicaid Drug Rebate Program requires pharmaceutical manufacturers to enter into and have in effect a national rebate agreement with the Secretary of the Department of Health and Human Services as a condition for states to receive federal matching funds for the manufacturer s covered outpatient drugs furnished to Medicaid patients. Effective in 2010, the PPACA made several changes to the Medicaid Drug Rebate Program, including increasing pharmaceutical manufacturers rebate liability by raising the minimum basic Medicaid rebate on most branded prescription drugs and biologic agents to 23.1% of the average manufacturer price, or AMP, and adding a new rebate calculation for line extensions (*i.e.* , new formulations, such as extended release formulations) of solid oral dosage forms of branded products, as well as potentially impacting their rebate liability by modifying the statutory definition of AMP. The PPACA also expanded the universe of Medicaid utilization subject to drug rebates by requiring pharmaceutical manufacturers to pay rebates on Medicaid managed care utilization as of 2010 and by expanding the population potentially eligible for Medicaid drug benefits, to be phased-in by 2014. The CMS have proposed to expand Medicaid rebate liability to the territories of the U.S. as well. In addition,

the PPACA provides for the public availability of retail survey prices and certain weighted average AMPs under the Medicaid program. The implementation of this requirement by the CMS may also provide for the public availability of pharmacy acquisition of cost data, which could negatively impact our sales.

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In order for a pharmaceutical product to receive federal reimbursement under the Medicare Part B and Medicaid programs or to be sold directly to U.S. government agencies, the manufacturer must extend discounts to entities eligible to participate in the 340B drug pricing program. The required 340B discount on a given product is calculated based on the AMP and Medicaid rebate amounts reported by the manufacturer. Effective in 2010, the PPACA expanded the types of entities eligible to receive discounted 340B pricing, although, under the current state of the law, with the exception of children s hospitals, these newly-eligible entities will not be eligible to receive discounted 340B pricing on orphan drugs when used for the orphan indication. In addition, as 340B drug pricing is determined based on AMP and Medicaid rebate data, the revisions to the Medicaid rebate formula and AMP definition described above could cause the required 340B discount to increase.

Effective in 2011, the PPACA imposed a requirement on manufacturers of branded drugs and biologic agents to provide a 50% discount off the negotiated price of branded drugs dispensed to Medicare Part D patients in the coverage gap (*i.e.*, donut hole).

Effective in 2011, the PPACA imposed an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs, although this fee would not apply to sales of certain products approved exclusively for orphan indications.

Effective in 2012, the PPACA required pharmaceutical manufacturers to track certain financial arrangements with physicians and teaching hospitals, including any transfer of value made or distributed to such entities, as well as any investment interests held by physicians and their immediate family members. Manufacturers are required to track this information beginning in 2013 and were required to make their first reports in March 2014. The information reported will be publicly available on a searchable website in September 2014.

As of 2010, a new Patient-Centered Outcomes Research Institute was established pursuant to the PPACA to oversee, identify priorities in and conduct comparative clinical effectiveness research, along with funding for such research. The research conducted by the Patient-Centered Outcomes Research Institute may affect the market for certain pharmaceutical products.

The PPACA created the Independent Payment Advisory Board, which, beginning in 2014, has the authority to recommend certain changes to the Medicare program to reduce expenditures by the program that could result in reduced payments for prescription drugs. Under certain circumstances, these recommendations will become law unless Congress enacts legislation that will achieve the same or greater Medicare cost savings.

The PPACA established the Center for Medicare and Medicaid Innovation within CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending. Funding has been allocated to support the mission of the Center for Medicare and Medicaid Innovation from 2011 to 2019.

Many of the details regarding the implementation of the PPACA are yet to be determined, and, at this time, the full effect of the PPACA on our business remains unclear.

Pediatric Exclusivity and Pediatric Use

Under the Best Pharmaceuticals for Children Act, or the BPCA, certain drugs may obtain an additional six months of exclusivity if the sponsor submits information requested in writing by the FDA, or a Written Request, relating to the use of the active moiety of the drug in children. Conditions for exclusivity include the FDA s determination that information relating to the use of a new drug in the pediatric population may produce health

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benefits in that population, the FDA making a written request for pediatric studies and the applicant agreeing to perform, and reporting on, the requested studies within the statutory timeframe. The FDA may not issue a Written Request for studies on unapproved or approved indications or where it determines that information relating to the use of a drug in a pediatric population, or part of the pediatric population, may not produce health benefits in that population. Applications under the BPCA are treated as priority applications, with all of the benefits that designation confers.

We have not received a Written Request for such pediatric studies, although we may ask the FDA to issue a Written Request for such studies in the future. To receive the six-month pediatric market exclusivity, we would need to receive a Written Request from the FDA, conduct the requested studies in accordance with a written agreement with the FDA or, if there is no written agreement, in accordance with commonly accepted scientific principles, and submit reports of the studies. A Written Request may include studies for indications that are not currently in the labeling if the FDA determines that such information will benefit the public health. The FDA will accept the reports upon its determination that the studies were conducted in accordance with, and are responsive to, the original Written Request or commonly accepted scientific principles, as appropriate, and that the reports comply with the FDA s filing requirements.

Under the Pediatric Research Equity Act of 2003, or the PREA, an NDA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the drug product for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The PREA also authorizes the FDA to require holders of approved NDAs for marketed drugs to conduct pediatric studies under certain circumstances. With the enactment of the Food and Drug Administration Safety and Innovation Act, or the FDASIA, in 2012, sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests, and other information required by regulation. The applicant, the FDA and the FDA s internal review committee must then review the information submitted, consult with each other and agree upon a final plan. The FDA or the applicant may request an amendment to the plan at any time.

The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in the FDASIA. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

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Intellectual Property

We have in-licensed from Ligand patents and patent applications that contain claims that recite our compounds, as set forth below. We plan to file additional patent applications in the U.S., E.U. and other foreign jurisdictions on our clinical and preclinical programs. Information regarding the issued patents and pending patent applications are as follows:

Subject Matter/Compounds	# Pending Applications	# Issued Patents	Geographical Scope	Nominal Patent Term
VK5211 (SARM)	9	11	U.S., Europe, Chile, Argentina, Brazil, Canada, China, India, Japan, Korea, Mexico, Taiwan, and Venezuela	2025-2028
Other SARM	10	31	U.S., Canada, India, Japan, Korea, Mexico, Australia, China, New Zealand, Argentina, Brazil, Europe, and Israel	2017-2026
VK0214 (TRß)	0	1	U.S.	2024
Other TRß agonist	1	2	Australia and Canada	2026
VK0612 (FBPase inhibitor)	3	12	U.S., China, Hong Kong, Israel, Korea, Mexico, India, Indonesia, New Zealand	2019-2020
FBPase Inhibitor Combinations	1	12	U.S., India, China, Korea, Israel, Mexico, Portugal, New Zealand, and Russia	2019-2021
DGAT-1 Inhibitors	1	2	U.S. and Europe	2030
EPOR Inhibitors	12	1	U.S., Australia, Canada, China, Europe, India, Japan, and Korea	2030-2031

Corporate Information

We were incorporated under the laws of the State of Delaware on September 24, 2012. Our principal executive offices are located at 12340 El Camino Real, San Diego, CA 92130, and our telephone number is (858) 704-4660. Our website address is *www.vikingtherapeutics.com.* We do not incorporate the information on, or accessible through, our website into this prospectus, and you should not consider any information on, or accessible through, our website as part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Employees

As of October 31, 2015, we had nine full-time employees and one part-time employee, four of whom hold a Ph.D. or M.D. degree. All employees are engaged in research and development, project management, business development and finance. None of our employees is subject to a collective bargaining agreement. We have never experienced a material work stoppage or disruption to our business relating to employee matters. We consider our relationship with our employees to be good.

Facilities

Our facilities consist of office space in San Diego, California. We lease approximately 7,049 square feet of space for our headquarters in San Diego, California under an agreement that expires on September 30, 2018. We believe that our existing facilities are adequate to meet our current needs, and that suitable additional alternative spaces will be available in the future on commercially reasonable terms.

Legal Proceedings

From time to time, we may be party to lawsuits in the ordinary course of business. We are not presently a party to any legal proceedings the outcome of which, if determined adversely to us, would individually or in the aggregate have a material adverse effect on our business, operating results or financial condition.

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MANAGEMENT

Executive Officers and Directors

The following table provides the names, ages, positions and descriptions of the business experience of our current executive officers and directors as of October 31, 2015:

Name	Age	Position
Executive Officers:		
Brian Lian, Ph.D.	50	President and Chief Executive Officer
Michael Morneau	50	Chief Financial Officer
Rochelle Hanley, M.D.	63	Chief Medical Officer
Non-Employee Directors:		
Lawson Macartney, DVM, Ph.D.	58	Chairperson of the Board of Directors and a Director (1), (2)
Matthew W. Foehr	43	Director
Matthew Singleton	63	Director (1), (3)
Stephen W. Webster	54	Director (1), (2), (3)

(1) Member of the Audit Committee.
(2) Member of the Nominating and Corporate Governance Committee.
(3) Member of the Compensation Committee.

Executive Officers

Brian Lian, Ph.D., has served as our President and Chief Executive Officer and as a Director since our inception in September 2012. Dr. Lian has over 15 years of experience in the biotechnology and financial services industries. Prior to joining Viking, he was a Managing Director and Senior Research Analyst at SunTrust Robinson Humphrey, an investment bank, from 2012 to 2013. At SunTrust Robinson Humphrey, he was responsible for coverage of small and mid-cap biotechnology companies with an emphasis on companies in the diabetes, oncology, infectious disease and neurology spaces. Prior to SunTrust Robinson Humphrey, he was Managing Director and Senior Research Analyst at Global Hunter Securities, an investment bank, from 2011 to 2012. Prior to Global Hunter Securities, he was Senior Healthcare Analyst at The Agave Group, LLC, a registered investment advisor, from 2008 to 2011. Prior to The Agave Group, he was an Executive Director and Senior Biotechnology Analyst at CIBC World Markets, an investment bank, from 2006 to 2008. Prior to CIBC, he was a research scientist in small molecule drug discovery at Amgen, a biotechnology company. Prior to Amgen, he was a research scientist at Microcide Pharmaceuticals, a biotechnology company. Dr. Lian holds an MBA in accounting and finance from Indiana University, an MS and Ph.D. in organic chemistry from The University of Michigan, and a BA in chemistry from Whitman College. We believe that Dr. Lian s experience in the biotechnology industry, as well as his extensive investment banking and other experience in the financial services industry, provide him with the qualifications and skills to serve as a member of our board of directors and bring relevant strategic and operational guidance to our board of directors.

Michael Morneau has served as our Chief Financial Officer since May 2014. Mr. Morneau has over 20 years of accounting and financial experience at public and private companies in the biotechnology and accounting industries. Prior to Viking, from 2009 to 2014, he was VP of Finance and Chief Accounting Officer at Trius Therapeutics, Inc., a subsidiary of Cubist Pharmaceuticals, Inc., a pharmaceutical company, following Cubist s acquisition of Trius in

September 2013. Prior to Trius, from 2008 to 2009, he was Director of Lilly Research Labs Finance at Eli Lilly and Company, a pharmaceutical company. Prior to Eli Lilly, from 2006 to 2008, he was Director of Finance and Accounting at SGX Pharmaceuticals, Inc., a biotechnology company, which was acquired by Eli Lilly. Prior to SGX, from 2004 to 2006, he was Controller at Momenta Pharmaceuticals, Inc., a biotechnology company. Mr. Morneau earned his MBA and MA in accounting from New Hampshire College, and a BA in mathematics from the University of New Hampshire.

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Rochelle Hanley M.D., F.A.C.P., has served as our Chief Medical Officer since April 2013. Dr. Hanley is Board Certified in internal medicine and clinical pharmacology and has 20 years of drug development experience, primarily in diabetes and metabolic disorders. She is a fellow of the American College of Physicians and is the recipient of several awards and honors, including the Pfizer Medical Research Merit Award in 1984, NIH Physician Scientist from 1986 to 1991, Established Investigator, American Heart Association, from 1991 to 1993, and the NIH FIRST Award from 1991 to 1993. Dr. Hanley is also a Diplomate of the American Board of Internal Medicine and a Diplomate of the American Board of Clinical Pharmacology. From 2011 to 2013, Dr. Hanley was an independent consultant to the pharmaceutical industry. Prior to that, she was Medical Director, Cardiovascular, Metabolic and Musculoskeletal Diseases at GlaxoSmithKline, or GSK, a pharmaceutical company, responsible for Asia Pacific research and development activities for albiglutide and darapladib, from 2008 to 2011. Prior to her position with GSK, from 2006 to 2008, she served as Chief Medical Officer for Quatrx Pharmaceuticals, a biotechnology company, managing the clinical program for ospemifene, for vaginal atrophy, which received U.S. approval in 2013. Prior to Quatrx, she was VP and Clinical Site Head, Ann Arbor at Pfizer, Inc., a pharmaceutical company. Prior to becoming Site Head, she was VP and Therapeutic Area Development Leader, Cardiovascular and Metabolic Diseases, Pfizer Global R&D. Prior to Pfizer, she was Senior Director, Endocrine and Diabetes Clinical Development, Parke Davis Pharmaceutical Research. Prior to Parke Davis, she was International Therapeutic Head, Metabolic Diseases, Glaxo Wellcome, a pharmaceutical company. Prior to Glaxo Wellcome, Dr. Hanley was an Assistant Professor, Division of Endocrinology, Duke University Medical Center. Dr. Hanley received her M.D. from the University of Michigan and a BA in molecular and cell biology from Smith College, and is licensed to practice medicine in Michigan and North Carolina (inactive).

Non-Employee Directors

Lawson Macartney, DVM, Ph.D., has served as the Chairperson of our board of directors since May 2015 and as a member of our board of directors since May 2014. Dr. Macartney has served as President, Chief Executive Officer and a member of the board of directors of Ambrx Inc., a biopharmaceutical company, since February 2013. Prior to Ambrx, Dr. Macartney served at Shire AG, a specialty biopharmaceutical company, as Senior Vice President of the Emerging Business Unit from 2011 to 2013, where he was responsible for discovery initiatives through Phase 3 development of Shire s Specialty Pharmaceutical portfolio. Prior to joining Shire AG, he served at GSK, a pharmaceutical company, from 1999 to 2011, serving as Senior Vice President of Global Product Strategy and Project/Portfolio Management from 2007 to 2011, as Senior Vice President, Cardiovascular and Metabolic Medicine Development Center from 2004 to 2007, and as Vice President, Global Head of Cardiovascular, Metabolic and Urology Therapeutic Areas from 1999 to 2004. Prior to joining GSK, Dr. Macartney was employed at Astra Pharmaceuticals from 1998 to 1999 in leadership roles in operations, marketing and sales, and served as Executive Director, Commercial Operations at AstraMerck, Inc., a pharmaceutical company, from 1996 to 1998. Dr. Macartney received his Ph.D. from Glasgow University in Scotland in 1982, where he was a Royal Society Research Fellow, and his B.V.M.S. (equivalent to a D.V.M.) in 1979 from Glasgow University Veterinary School. He is also trained in diagnostic pathology and is a Fellow of the Royal College of Pathologists. We believe that Dr. Macartney s extensive experience in leadership positions at numerous pharmaceutical companies qualifies him to serve on our board of directors.

Matthew W. Foehr has served as a member of our board of directors since May 2014. Since February 2015, Mr. Foehr has served as President and Chief Operating Officer of Ligand Pharmaceuticals Incorporated, and previously served as Executive Vice President and Chief Operating Officer of Ligand Pharmaceuticals Incorporated from April 2011 to February 2015. Mr. Foehr has 20 years of experience in the pharmaceutical industry, having managed global operations and research and development programs. From March 2010 to April 2011, he was Vice President and Head of Consumer Dermatology R&D, as well as Acting Chief Scientific Officer of Dermatology, in the Stiefel division of GSK. Following GSK s $3.6 billion acquisition of Stiefel Laboratories, Inc., a pharmaceutical

company, in 2009, Mr. Foehr led the R&D integration of Stiefel into GSK. At Stiefel Laboratories, Inc., Mr. Foehr served as Senior Vice President of Global R&D Operations, Senior Vice President of Product Development & Support, and Vice President of Global Supply Chain Technical Services

from January 2007 to March 2010. Prior to Stiefel, Mr. Foehr held various executive roles at Connetics Corporation, a pharmaceutical company, including Senior Vice President of Technical Operations and Vice President of Manufacturing. Early in his career, Mr. Foehr managed manufacturing activities and worked in process sciences at both LXR Biotechnology Inc. and Berlex Biosciences. Mr. Foehr is the author of multiple scientific publications and is named on numerous U.S. patents. He received his BS in Biology from Santa Clara University. We believe that Mr. Foehr s past service in executive management roles for companies in the pharmaceutical industry and related experience provide him with the qualifications and skills to serve as a member of our board of directors. Pursuant to the management rights letter between us and Ligand, dated May 21, 2014, Ligand has the right to nominate one individual for election to our board of directors, and Mr. Foehr is the current member of our board of directors nominated by Ligand.

Matthew Singleton has served as a member of our board of directors since May 2014. In October 2011, Mr. Singleton retired from his position as Executive Vice President and Chief Financial Officer of CitationAir (formerly CitationShares LLC), a privately held jet services company wholly-owned by Textron Inc., a public industrial conglomerate. He had served in this position since 2000. Mr. Singleton has extensive financial, accounting and transactional experience, including through his role as Managing Director, Executive Vice President and Chief Administrative Officer of CIBC World Markets, an investment banking company, for 20 years, from 1974 to 1994, at Arthur Andersen & Co., a public accounting firm, including as Partner-in-Charge of the Metro New York Audit and Business Advisory Practice, and as a Practice Fellow at the Financial Accounting Standards Board, a private organization responsible for establishing financial accounting reporting standards. From 2003 until 2014, Mr. Singleton served as a director of Cubist Pharmaceuticals Inc., and as Audit Committee Chair beginning in 2004. Mr. Singleton previously served as an independent director of Salomon Reinvestment Company Inc., a privately held investment services company. Mr. Singleton received an AB in Economics from Princeton University and his MBA from New York University with a focus in Accounting. We believe that Mr. Singleton s financial, accounting and business expertise provide him with the qualifications and skills to serve as a member of our board of directors, and are of particular importance as we continue to finance our operations.

Stephen W. Webster has served as a member of our board of directors since May 2014. Mr. Webster has served as the Chief Financial Officer of Spark Therapeutics, Inc., a biotechnology company, since July 2014. He was previously SVP and Chief Financial Officer of Optimer Pharmaceuticals, Inc., a biotechnology company, from 2012 to 2013, until its acquisition by Cubist Pharmaceuticals, Inc. Prior to joining Optimer, Mr. Webster served as SVP and Chief Financial Officer of Adolor Corporation, a biopharmaceutical company, from June 2008 until its acquisition by Cubist Pharmaceuticals, Inc. in December 2011. From 2007 until joining Adolor Corporation in 2008, Mr. Webster served as Managing Director, Investment Banking Division, Health Care Group for Broadpoint Capital Inc. (formerly First Albany Capital). Mr. Webster previously served as co-founder, President and Chief Executive Officer for Neuronyx, Inc., a biopharmaceutical company, from 2000 to 2006. From 1987 to 2000, Mr. Webster served in positions of increased responsibility, including as Director, Investment Banking Division, Health Care Group for PaineWebber Incorporated. He previously served as a Director of HearUSA (now Husa Liquidating Corporation), a public company specializing in hearing care, from 2008-2012, and he currently serves as a Director of the Pennsylvania Biotechnology Association. Mr. Webster holds an AB in Economics *cum laude* from Dartmouth College and an MBA in Finance from The Wharton School of the University of Pennsylvania. We believe that Mr. Webster s extensive experience in the biopharmaceutical industry, and in particular his prior service as chief financial officer and in other executive management roles, provide him with the qualifications and skills to serve as a member of our board of directors.

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Scientific Advisors and Consultants

From time to time, our management seeks the advice and guidance of certain scientific advisors and consultants regarding clinical and regulatory development programs and other customary matters. Our scientific advisors are experts in various areas of medicine and drug development, including physiology, biophysics, chemistry, and endocrine, metabolic and cardiovascular diseases. We refer to the following individuals as our scientific advisors and consultants:

David Bullough, Ph.D. VP, Preclinical Development, RaNA Therapeutics. Former Executive Director, Pfizer. Former VP, Preclinical Development, Metabasis Therapeutics, Inc.

Alan D. Cherrington, Ph.D. Professor of Molecular Physiology and Biophysics, Professor of Medicine, Turner Chair in Diabetes Research, Vanderbilt University Medical Center. Past President, American Diabetes Association.

G. Alexander Fleming, M.D. CEO, Kinexum. Former Group Leader, Division of Metabolic and Endocrine Drug Products, FDA. Former member, ICH working groups E6-Good Clinical Practice; and E8-General Considerations for Clinical Trials.

Scott J. Hecker, Ph.D. VP, Chemistry, Rempex Pharmaceuticals (a subsidiary of The Medicines Company). Former VP, Chemistry, Metabasis Therapeutics, Inc. Former VP, Chemistry, Microcide Pharmaceuticals. Former Senior Research Investigator, Discovery Research, Pfizer.

Stephan Kemp, Ph.D. Assistant Professor and Principal Investigator, Genetic Metabolic Diseases, Departments of Laboratory Medicine, Pediatric Neurology and Pediatrics, Academic Medical Center, University of Amsterdam, The Netherlands.

Jay S. Magaziner, Ph.D., M.S.Hyg. Professor of Epidemiology and Public Health, Chair and Division Head, Department of Epidemiology and Public Health, University of Maryland School of Medicine.

Paul Ladenson, M.D. Professor of Medicine; Director, Division of Endocrinology, Diabetes and Metabolism, Department of Medicine; Johns Hopkins School of Medicine.

Board of Directors

Our business and affairs are managed under the direction of our board of directors, which currently consists of five members. The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling and direction to our management.

In accordance with our amended and restated certificate of incorporation and our amended and restated bylaws, our board of directors is divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Our directors are divided among the three classes as follows:

- our class I director is Mr. Foehr and his term will expire at the annual meeting of stockholders to be held in 2016;

our class II directors are Mr. Singleton and Mr. Webster and their term will expire at the annual meeting of stockholders to be held in 2017; and

our class III directors are Dr. Lian and Dr. Macartney and their term will expire at the annual meeting of stockholders to be held in 2018.

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At each annual meeting of stockholders, the successors to the directors whose term will then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. In addition, the authorized number of directors may be changed only by resolution of our 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. This classification of our board of directors may have the effect of delaying or preventing a change of our management or a change in control.

Director Independence

Under the Nasdaq Rules, a majority of the members of our board of directors must satisfy the Nasdaq criteria for independence. No director qualifies as independent under the Nasdaq Rules unless our board of directors affirmatively determines that the director does not have a relationship with us that would impair independence (directly or as a partner, stockholder or officer of an organization that has a relationship with us). Our board of directors has determined that Dr. Macartney and Messrs. Singleton and Webster are independent directors as defined under the Nasdaq Rules. Dr. Lian is not independent under the Nasdaq Rules as a result of his position as our President and Chief Executive Officer. Mr. Foehr is not independent under the Nasdaq Rules in light of the Master License Agreement and related agreements between us and Ligand and Mr. Foehr s position as an executive officer of Ligand.

Committees of the Board of Directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors are described below. Members serve on these committees until their resignation, disqualification or removal or until otherwise determined by our board of directors.

Audit Committee

Our audit committee is comprised of Dr. Macartney and Messrs. Singleton and Webster, with Mr. Singleton serving as Chairperson of the committee. Each member of the audit committee must be independent as defined under the applicable Nasdaq Rules and SEC rules and financially literate under the Nasdaq Rules. Our board of directors has determined that each member of the audit committee is independent and financially literate under the Nasdaq Rules and the SEC rules and that Mr. Singleton is an audit committee financial expert under the rules of the SEC. The responsibilities of the audit committee are included in a written charter. The audit committee acts on behalf of our board of directors in fulfilling our board of directors oversight responsibilities with respect to our corporate accounting and financial reporting processes, the systems of internal control over financial reporting and audits of financial statements, and also assists our board of directors in its oversight of the quality and integrity of our financial statements and reports and the qualifications, independence and performance of our independent registered public accounting firm. For this purpose, the audit committee performs several functions. The audit committee s responsibilities include:

- appointing, determining the compensation of, retaining, overseeing and evaluating our independent registered public accounting firm and any other registered public accounting firm engaged for the purpose of performing other review or attest services for us;

prior to commencement of the audit engagement, reviewing and discussing with the independent registered public accounting firm a written disclosure by the prospective independent registered public accounting firm of all relationships between us, or persons in financial oversight roles, and such independent registered public accounting firm or their affiliates;

determining and approving engagements of the independent registered public accounting firm, prior to commencement of the engagement, and the scope of and plans for the audit;

monitoring the rotation of partners of the independent registered public accounting firm on our audit engagement;

reviewing with management and the independent registered public accounting firm any fraud that includes management or employees who have a significant role in our internal control over financial reporting and any significant changes in internal controls;

establishing and overseeing procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or other auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters;

reviewing management s efforts to monitor compliance with our policies designed to ensure compliance with laws and rules; and

reviewing and discussing with management and the independent registered public accounting firm the results of the annual audit and the independent registered public accounting firm s assessment of the quality and acceptability of our accounting principles and practices and all other matters required to be communicated to the audit committee by the independent registered public accounting firm under generally accepted accounting standards, the results of the independent registered public accounting firm s review of our quarterly financial information prior to public disclosure and our disclosures in our periodic reports filed with the SEC.

The audit committee reviews, discusses and assesses its own performance and composition at least annually. The audit committee also periodically reviews and assesses the adequacy of its charter, including its role and responsibilities as outlined in its charter, and recommends any proposed changes to our board of directors for its consideration and approval.

Compensation Committee

Our compensation committee is comprised of Messrs. Singleton and Webster, with Mr. Webster serving as Chairperson of the committee. Our board of directors has determined that each member of the committee is independent under the Nasdaq Rules and all applicable laws. Each of the members of this committee is also a nonemployee director as that term is defined under Rule 16b-3 of the Exchange Act and an outside director as that term is defined in Treasury Regulations Section 1.162-27(3). The compensation committee acts on behalf of our board of directors to fulfill our board of directors responsibilities in overseeing our compensation policies, plans and programs; and in reviewing and determining the compensation to be paid to our executive officers and non-employee directors. The responsibilities of the compensation committee include:

reviewing, modifying and approving (or, if the compensation committee deems appropriate, making recommendations to our board of directors regarding) our overall compensation strategies and policies, and reviewing and approving corporate performance goals and objectives relevant to the compensation of our executive officers and senior management;

determining and approving (or, if the compensation committee deems appropriate, recommending to our board of directors for determination and approval) the compensation and terms of employment of our Chief Executive Officer, including seeking to achieve an appropriate level of risk and reward in determining the long-term incentive component of the Chief Executive Officer s compensation;

determining and approving (or, if the compensation committee deems appropriate, recommending to our board of directors for determination and approval) the compensation and terms of employment of our executive officers and senior management;

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evaluating and approving (or, if it deems appropriate, making recommendations to our board of directors regarding) corporate performance goals and objectives relevant to the compensation of our executive officers and senior management;

reviewing and approving (or, if it deems appropriate, making recommendations to our board of directors regarding) the terms of employment agreements, severance agreements, change-of-control protections and other compensatory arrangements for our executive officers and senior management;

conducting periodic reviews of the base compensation levels of all of our employees generally;

reviewing and approving the type and amount of compensation to be paid or awarded to non-employee directors;

reviewing and approving the adoption, amendment and termination of our stock option plans, stock appreciation rights plans, pension and profit sharing plans, incentive plans, stock bonus plans, stock purchase plans, bonus plans, deferred compensation plans and similar programs, if any; and administering all such plans, establishing guidelines, interpreting plan documents, selecting participants, approving grants and awards and exercising such other power and authority as may be permitted or required under such plans;

reviewing our incentive compensation arrangements to determine whether such arrangements encourage excessive risk-taking, and reviewing and discussing the relationship between our risk management policies and practices and compensation, and evaluating compensation policies and practices that could mitigate any such risk, at least annually;

reviewing and recommending to our board of directors for approval the frequency with which we conduct a vote on executive compensation, taking into account the results of the most recent stockholder advisory vote on the frequency of the vote on executive compensation, and reviewing and approving the proposals regarding the frequency of the vote on executive compensation to be included in our annual meeting proxy statements; and

reviewing and discussing with management our Compensation Discussion and Analysis, and recommending to our board of directors that the Compensation Discussion and Analysis be approved for inclusion in our annual reports on Form 10-K, registration statements and our annual meeting proxy statements.

Under its charter, the compensation committee may form, and delegate authority to, subcommittees as appropriate. The compensation committee reviews, discusses and assesses its own performance and composition at least annually. The compensation committee also periodically reviews and assesses the adequacy of its charter, including its role and responsibilities as outlined in its charter, and recommends any proposed changes to our board of directors for its consideration and approval.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee is comprised of Dr. Macartney and Mr. Webster, with Dr. Macartney serving as Chairperson of the committee. Our board of directors has determined that each member of the committee is independent under the Nasdaq Rules and all applicable laws. The responsibilities of the nominating and corporate governance committee are included in its written charter. The nominating and corporate governance committee acts on behalf of our board of directors to fulfill our board of directors responsibilities in overseeing all aspects of our nominating and corporate governance functions. The responsibilities of the nominating and corporate governance committee include:

making recommendations to our board of directors regarding corporate governance issues;

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identifying, reviewing and evaluating candidates to serve as directors (consistent with criteria approved by our board of directors);

determining the minimum qualifications for service on our board of directors;

reviewing and evaluating incumbent directors;

instituting and overseeing director orientation and director continuing education programs;

serving as a focal point for communication between candidates, non-committee members and our management;

recommending to our board of directors for selection candidates to serve as nominees for director for the annual meeting of stockholders;

making other recommendations to our board of directors regarding matters relating to the directors;

reviewing succession plans for our Chief Executive Officer and our other executive officers; and

considering any recommendations for nominees and proposals submitted by stockholders.

The nominating and corporate governance committee periodically reviews, discusses and assesses the performance of our board of directors and the committees of our board of directors. In fulfilling this responsibility, the nominating and corporate governance committee seeks input from senior management, our board of directors and others. In assessing our board of directors, the nominating and corporate governance committee evaluates the overall composition of our board of directors, our board of directors contribution as a whole and its effectiveness in serving our best interests and the best interests of our stockholders. The nominating and corporate governance committee also periodically reviews and assesses the adequacy of its charter, including its role and responsibilities as outlined in its charter, and recommends any proposed changes to our board of directors for its consideration and approval.

Board Leadership Structure

Our amended and restated bylaws provide our board of directors with flexibility in its discretion to combine or separate the positions of Chairperson of our board of directors and Chief Executive Officer. Dr. Macartney, who is an independent director, serves as Chairperson of our board of directors. As a general policy, our board of directors believes that separation of the positions of Chairperson of our board of directors and Chief Executive Officer reinforces the independence of our board of directors from management, creates an environment that encourages objective oversight of management s performance and enhances the effectiveness of our board of directors as a whole. We believe that this separation of responsibilities will provide a balanced approach to managing our board of directors and overseeing the company. 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

Our board of directors is responsible for overseeing our overall risk management process. The responsibility for managing risk rests with executive management while the committees of our board of directors and our board of directors as a whole participate in the oversight process. Our board of directors risk oversight process builds upon management s risk assessment and mitigation processes, which include reviews of long-term strategic and operational planning, executive development and evaluation, regulatory and legal compliance, and financial reporting and internal controls.

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Executive Officers

Our executive officers are elected by, and serve at the discretion of, our board of directors. There are no familial relationships between our directors and executive officers.

Code of Conduct and Ethics

Our board of directors has adopted a code of conduct and ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior officers. We have posted the code of conduct and ethics on our website at *www.vikingtherapeutics.com*. The code of conduct and ethics can only be amended by the approval of our audit committee and any waiver to the code of conduct and ethics for an executive officer or director may only be granted by our audit committee and must be timely disclosed as required by applicable law. We expect that any amendments to the code of conduct and ethics, or any waivers of its requirements, will be disclosed on our website.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time since our inception been one of our officers or employees. None of our executive officers currently serves, or in the last completed fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Non-Employee Director Compensation

Our board of directors has adopted a compensation policy for our non-employee directors that consists of annual retainer fees and long-term equity awards. Under this policy, each non-employee director will receive an annual retainer of $33,170 for serving on our board of directors. The Chairperson of our board of directors will receive an additional annual retainer of $32,800, the chairperson of the audit committee will receive an additional annual retainer of $16,650, the chairperson of the compensation committee will receive an additional annual retainer of $11,350 and the chairperson of the nominating and corporate governance committee will receive an additional annual retainer of $9,280. Each other member of the audit committee will receive an additional annual retainer of $8,900, each other member of the compensation committee will receive an additional annual retainer of $6,750 and each other member of the nominating and corporate governance committee will receive an additional annual retainer of $4,900. All cash retainers will be earned on a quarterly basis based on a calendar quarter, and, if applicable, will be prorated for the portion of the calendar quarter during which such non-employee director actually serves on our board of directors or a committee thereof, and will be paid in arrears no later than the 30th day following the end of each calendar quarter.

In addition to cash fees, each non-employee director will be granted on the first business day of each calendar year a stock option to purchase 16,000 shares of our common stock. If a non-employee director joins our board of directors other than at an annual meeting of our stockholders, such non-employee director will be granted on the date such individual first becomes appointed or elected as a non-employee director (1) a stock option to purchase 32,000 shares of our common stock and (2) a stock option to purchase 16,000 shares of our common stock, reduced pro rata for each day prior to the date of grant that has elapsed since January 1st of the year in which the individual first becomes a non-employee director. Annual equity awards and equity awards granted to new non-employee directors will vest in full on the one-year anniversary of the applicable date of grant, subject to the director s continuous service through such date.

Each initial equity award and each annual equity award will have a maximum term of ten years and will be made in the form of nonstatutory stock options. For any non-employee director serving at the time of a change in control of our company (as defined in our 2014 Equity Incentive Plan), all then-outstanding and unvested

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compensatory equity awards granted under the non-employee director compensation policy would become fully vested and exercisable, if applicable, immediately prior to the change in control.

We did not pay any compensation to our non-employee directors for their service on our board of directors or its committees in 2014.

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EXECUTIVE COMPENSATION

Our named executive officers for the year ended December 31, 2014, which consist of our principal executive officer and the three other most highly compensated executive officers who were serving as executive officers as of December 31, 2014, are:

Brian Lian, Ph.D., our Chief Executive Officer;

Michael Dinerman, M.D., our former Chief Operating Officer; and

Michael Morneau, our Chief Financial Officer.

Summary Compensation Table for 2014 and 2013

The following table sets forth certain information with respect to the compensation paid to our named executive officers for the fiscal years ended December 31, 2014 and 2013:

Name and Principal Position	Year	Salary ($)	Bonus ($)(5)	Non-Equity Incentive Plan Compensation ($)	Stock Awards ($)	All Other Compensation ($)	Total ($)
Brian Lian, Ph.D.	2014	164,355	45,108		168,125(1)		377,588
Chief Executive Officer	2013	39,500					39,500
Michael Dinerman, M.D.(2)	2014	139,707	27,836			2,937	170,480
Chief Operating Officer	2013	6,500					6,500
Michael Morneau(3)	2014	102,565	26,793			25,600(4)	154,958
Chief Financial Officer							

(1) The amount represents the aggregate grant date fair value of a stock award granted to Dr. Lian, computed in accordance with authoritative accounting guidance. The amount does not represent the actual amount paid to or realized by Dr. Lian during fiscal 2014.

(2) Dr. Dinerman resigned from his position as our Chief Operating Officer effective as of September 30, 2015.

(3) Mr. Morneau first became an employee of ours in May 2014.

(4) The amount represents fees paid for consulting services prior to the date Mr. Morneau became an employee of ours.

(5) These bonuses were approved by the compensation committee of our board of directors in August 2015 and were paid in September 2015.

Narrative Disclosure to Summary Compensation Table

2013 Employment Agreements and Arrangements

Pursuant to an agreement among us, Dr. Lian and Dr. Dinerman, we agreed to make monthly salary payments to each of Dr. Lian and Dr. Dinerman in the following amounts: (1) to Dr. Lian, a salary of $7,000 for the month of July 2013 and a salary of $6,500 per month thereafter, and (2) to Dr. Dinerman, a salary of $3,000 for the month of November 2013 and $3,500 per month thereafter. This agreement was terminated effective as of June 1, 2014.

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Employment Agreements

Employment Agreement President and Chief Executive Officer

We entered into an employment agreement with Brian Lian, Ph.D., as our President and Chief Executive Officer, or the Lian Employment Agreement, which became effective on June 2, 2014. The Lian Employment Agreement is subject to automatic renewals for additional one-year periods following June 2, 2015, unless either party gives the other written notice of its or his election to not renew, or a Lian Non-Renewal Notice. Pursuant to the Lian Employment Agreement, we agreed to nominate Dr. Lian, and to continue to nominate him, to serve as a member of our board of directors, and Dr. Lian agreed to continue to serve as a member of our board of directors for as long as he is elected by our stockholders, until his employment with us is terminated. Through May 4, 2015, Dr. Lian s base salary was $193,193 per year. Commencing on May 5, 2015, Dr. Lian s annual base salary was increased to $386,386, subject to annual review by our board of directors or compensation committee and, if appropriate, increase (but not decrease except in certain limited circumstances). Additionally, the Lian Employment Agreement provides that Dr. Lian will be eligible to receive a target annual bonus in an amount equal to 40% of his base salary in effect on June 30th of each calendar year for 2015 and after (and an amount of $115,915 for 2014, prorated from the effective date of his employment agreement), which bonus will be based on our financial performance and Dr. Lian s individual performance, in each case as determined by our board of directors or compensation committee. However, for 2014, Dr. Lian s target annual bonus was equal to 40% of his salary in effect prior to completion of the IPO, pro-rated from June 2, 2014 through December 31, 2014. In September 2015, Dr. Lian was paid $45,108 as a prorated cash bonus for 2014.

Under the Lian Employment Agreement, on May 4, 2015, Dr. Lian was granted (1) a stock option to purchase 87,500 shares of our common stock (subject to adjustment for stock splits), whereby 25% of the shares subject to the option were vested upon grant and 25% of the shares subject to the option will vest on each one-year anniversary of the date of grant for the next three years, so long as Dr. Lian continues to provide service to us on each applicable vesting date; (2) an award of 87,500 shares of common stock (subject to adjustment for stock splits), whereby one-third of the shares subject to the award will vest on each one-year anniversary of the date of grant for the next three years, so long as Dr. Lian continues to provide service to us on each applicable vesting date, subject to withholding of shares to cover tax withholding obligations arising upon the vesting of shares subject to the award; and (3) an additional award of 16,346 shares of common stock, which were fully vested upon grant, or, collectively, the Lian Awards. The Lian Awards were issued under and subject to the terms and conditions of the 2014 Equity Incentive Plan.

Dr. Lian s employment with us is at-will, meaning either we or Dr. Lian may terminate the employment relationship at any time, with or without cause. However, Dr. Lian must provide at least 60 days written notice of resignation. If we terminate Dr. Lian s employment, then, so long as Dr. Lian complies with certain obligations, including execution and delivery of a general release within a specified period of time, we will pay Dr. Lian: (1) his base salary as of the termination date for six months following the termination date, if such termination is pursuant to a Lian Non-Renewal Notice, disability or death, or for 12 months in the case of termination other than by Lian Non-Renewal Notice, for cause, disability or death; (2) six monthly payments if such termination is pursuant to a Lian Non-Renewal Notice, disability or death, or 12 monthly payments in the case of termination other than by Lian Non-Renewal Notice, for cause, disability or death, in each case equal to 1/12 of the amount equal to Dr. Lian s target annual bonus percentage as of the termination date multiplied by Dr. Lian s base salary as of such date; and (3) subject to Dr. Lian s timely election of COBRA, the amount equal to the COBRA premiums for the lesser of (a) six months if such termination is pursuant to a Lian Non-Renewal Notice, disability or death, or 12 months in the case of termination other than by Lian Non-Renewal Notice, for cause, disability or death, or (b) until Dr. Lian becomes eligible to enroll in another employer-sponsored group health plan. Additionally, if Dr. Lian s employment is terminated by us (i) pursuant to a Lian Non-Renewal Notice, disability or death, the outstanding equity awards subject to the Lian Awards that would

have vested within six months following the termination date will vest and become fully exercisable as of such termination date, and Dr. Lian will have six months from the termination date to exercise vested options under the Lian

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Awards (unless they terminate sooner pursuant to their terms), and (ii) other than by Lian Non-Renewal Notice, for cause, disability or death, the outstanding equity awards subject to the Lian Awards that would have vested within 12 months following the termination date will vest and become fully exercisable as of the termination date, and Dr. Lian will have 12 months from the termination date to exercise vested options under the Lian Awards (unless they terminate sooner pursuant to their terms). In each case, all other equity awards subject to the Lian Awards will terminate without compensation therefore on the termination date. Furthermore, if Dr. Lian resigns for good reason, he will be entitled to receive the same payments and accelerated vesting as if he had been terminated other than by Lian Non-Renewal Notice, for cause, disability or death, as set forth above.

In the event of a change in control of our company, 100% of the unvested outstanding equity awards granted under the Lian Awards will vest and become fully exercisable immediately prior to the change in control. Additionally, if any vested equity awards held by Dr. Lian are not assumed or substituted for in accordance with certain conditions, we will pay cash to Dr. Lian on the change in control in exchange for the satisfaction and cancellation of the outstanding equity awards. If Dr. Lian s employment is terminated within 24 months following a change in control, subject to certain conditions, he will be entitled to receive the same payments and accelerated vesting as if he had been terminated other than by Lian Non-Renewal Notice, for cause, disability or death, as set forth above; however, he will be entitled to such payments for a period of 18 months and the vesting of the Lian Awards will be accelerated by 18 months.

Employment Agreement Chief Financial Officer

We entered into an employment agreement with Michael Morneau, as our Chief Financial Officer, or the Morneau Employment Agreement, which became effective on May 21, 2014. The Morneau Employment Agreement is subject to automatic renewals for additional one-year periods following May 21, 2015, unless either party gives the other written notice of its or his election to not renew, or a Morneau Non-Renewal Notice. Pursuant to the terms of the Morneau Employment Agreement, Mr. Morneau s base salary was initially $189,000 per year. Effective October 1, 2014, Mr. Morneau agreed to an amended base salary of $135,000. Commencing on May 5, 2015, Mr. Morneau s annual base salary was increased to $270,000, subject to annual review by our board of directors or compensation committee and, if appropriate, increase (but not decrease except in certain limited circumstances). Additionally, the Morneau Employment Agreement provides that Mr. Morneau will be eligible to receive a target annual bonus in an amount equal to 30% of his base salary in effect on June 30th of each calendar year for 2015 and after (and an amount of $68,850 for 2014, prorated from the effective date of his employment agreement), which bonus will be based on our financial performance and Mr. Morneau s individual performance, in each case as determined by our board of directors or compensation committee. However, for 2014, Mr. Morneau s target annual bonus was equal to 30% of his salary in effect prior to completion of the IPO, pro-rated from May 21, 2014 through December 31, 2014. In September 2015, Mr. Morneau was paid $26,793 as a pro-rated cash bonus for 2014.Under the Morneau Employment Agreement, on May 4, 2015, Mr. Morneau was granted (1) a stock option to purchase 25,500 shares of our common stock (subject to adjustment for stock splits), whereby 25% of the shares subject to the option were vested upon grant and 25% of the shares subject to the option will vest on each one-year anniversary of the date of grant for the next three years, so long as Mr. Morneau continues to provide service to us on each applicable vesting date; (2) an award of 67,000 shares of common stock (subject to adjustment for stock splits), whereby one-third of the shares subject to the award will vest on each one-year anniversary of the date of grant for the next three years, so long as Mr. Morneau continues to provide service to us on each applicable vesting date, subject to withholding of shares to cover tax withholding obligations arising upon the vesting of shares subject to the award; and (3) an additional award of 10,404 shares of common stock, which were fully vested upon grant, or, collectively, the Morneau Awards. The Morneau Awards were issued under and subject to the terms and conditions of the 2014 Equity Incentive Plan.

Mr. Morneau s employment with us is at-will, meaning either we or Mr. Morneau may terminate the employment relationship at any time, with or without cause. However, Mr. Morneau must provide at least 60 days written notice of resignation. If we terminate Mr. Morneau s employment, then, so long as Mr. Morneau complies with certain obligations, including execution and delivery of a general release within a specified period

of time, we will pay Mr. Morneau: (1) his base salary as of the termination date for three months following the termination date, if such termination is pursuant to a Morneau Non-Renewal Notice, disability or death, or for six months in the case of termination other than by Morneau Non-Renewal Notice, for cause, disability or death; (2) three monthly payments if such termination is pursuant to a Morneau Non-Renewal Notice, disability or death, or six monthly payments in the case of termination other than by Morneau Non-Renewal Notice, for cause, disability or death, in each case equal to 1/12 of the amount equal to Mr. Morneau s target annual bonus percentage as of the termination date multiplied by Mr. Morneau s base salary as of such date; and (3) subject to Mr. Morneau s timely election of COBRA, the amount equal to the COBRA premiums for the lesser of (a) three months if such termination is pursuant to a Morneau Non-Renewal Notice, disability or death, or six months in the case of termination other than by Morneau Non-Renewal Notice, for cause, disability or death, or (b) until Mr. Morneau becomes eligible to enroll in another employer-sponsored group health plan. Additionally, if Mr. Morneau s employment is terminated by us (i) pursuant to a Morneau Non-Renewal Notice, disability or death, the outstanding equity awards subject to the Morneau Awards that would have vested within three months following the termination date will vest and become fully exercisable as of such termination date, and Mr. Morneau will have three months from the termination date to exercise vested options under the Morneau Awards (unless they terminate sooner pursuant to their terms), and (ii) other than by Morneau Non-Renewal Notice, for cause, disability or death, the outstanding equity awards subject to the Morneau Awards that would have vested within six months following the termination date will vest and become fully exercisable as of the termination date, and Mr. Morneau will have six months from the termination date to exercise vested options under the Morneau Awards (unless they terminate sooner pursuant to their terms). In each case, all other equity awards subject to the Morneau Awards will terminate without compensation therefore on the termination date. Furthermore, if Mr. Morneau resigns for good reason, he will be entitled to receive the same payments and accelerated vesting as if he had been terminated other than by Morneau Non-Renewal Notice, for cause, disability or death, as set forth above.

In the event of a change in control of our company, 100% of the unvested outstanding equity awards granted under the Morneau Awards will vest and become fully exercisable immediately prior to the change in control. Additionally, if any vested equity awards held by Mr. Morneau are not assumed or substituted for in accordance with certain conditions, we will pay cash to Mr. Morneau on the change in control in exchange for the satisfaction and cancellation of the outstanding equity awards. If Mr. Morneau s employment is terminated within 24 months following a change in control, subject to certain conditions, he will be entitled to receive the same payments and accelerated vesting as if he had been terminated other than by Morneau Non-Renewal Notice, for cause, disability or death, as set forth above; however, he will be entitled to such payments for a period of 12 months and the vesting of the Morneau Awards will be accelerated by 12 months.

Employment Agreement Former Chief Operating Officer

We entered into an employment agreement with Michael Dinerman, M.D., as our Chief Operating Officer, or the Dinerman Employment Agreement, which became effective on June 2, 2014. The Dinerman Employment Agreement was subject to automatic renewals for additional one-year periods following June 2, 2015, unless either party gave the other written notice of its or his election to not renew, or a Dinerman Non-Renewal Notice. The Dinerman Employment Agreement terminated upon Dr. Dinerman s resignation from his position as our Chief Operation Officer, effective as of September 30, 2015. Pursuant to the terms of the Dinerman Employment Agreement, Dr. Dinerman s base salary was initially $178,831 per year. Effective October 1, 2014, Dr. Dinerman agreed to an amended base salary of $149,026. Commencing on May 5, 2015 and until his resignation, Dr. Dinerman s annual base salary was $298,052. Additionally, the Dinerman Employment Agreement provided that Dr. Dinerman would be eligible to receive a target annual bonus in an amount equal to 30% of his base salary in effect on June 30th of each calendar year for 2015 and after (and an amount of $71,532 for 2014, prorated from the effective date of his employment agreement), which bonus would be based on our financial performance and Dr. Dinerman s individual performance, in

each case as determined by our board of directors or compensation committee. However, for 2014, Dr. Dinerman s target annual bonus was equal to 30% of his salary in effect prior to completion of the IPO, pro-rated from June 2, 2014 through December 31, 2014. In September 2015, Dr. Dinerman was paid $27,836 as a pro-rated cash bonus for 2014.

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Under the Dinerman Employment Agreement, on May 4, 2015, Dr. Dinerman was granted (1) a stock option to purchase 45,000 shares of our common stock (subject to adjustment for stock splits), whereby 25% of the shares subject to the option were vested upon grant and 25% of the shares subject to the option were scheduled to vest on each one-year anniversary of the date of grant for the next three years, so long as Dr. Dinerman continued to provide service to us on each applicable vesting date; (2) an award of 105,000 shares of common stock (subject to adjustment for stock splits), whereby one-third of the shares subject to the award were scheduled to vest on each one-year anniversary of the date of grant for the next three years, so long as Dr. Dinerman continued to provide service to us on each applicable vesting date, subject to withholding of shares to cover tax withholding obligations arising upon the vesting of shares subject to the award; and (3) an additional award of 8,724 shares of common stock, which were fully vested upon grant, or, collectively, the Dinerman Awards. The Dinerman Awards were issued under and subject to the terms and conditions of the 2014 Equity Incentive Plan. All of the unvested Dinerman Awards were cancelled upon Dr. Dinerman s resignation from his position as our Chief Operating Officer, effective as of September 30, 2015.

Prior to his resignation, Dr. Dinerman s employment with us was at-will, meaning either we or Dr. Dinerman had the right to terminate the employment relationship at any time, with or without cause. Pursuant to the terms of the Dinerman Employment Agreement, if we terminated Dr. Dinerman s employment, then, so long as Dr. Dinerman complied with certain obligations, including execution and delivery of a general release within a specified period of time, we would have been obligated to pay Dr. Dinerman: (1) his base salary as of the termination date for three months following the termination date, if such termination was pursuant to a Dinerman Non-Renewal Notice, disability or death, or for six months in the case of termination other than by Dinerman Non-Renewal Notice, for cause, disability or death; (2) three monthly payments if such termination was pursuant to a Dinerman Non-Renewal Notice, disability or death, or six monthly payments in the case of termination other than by Dinerman Non-Renewal Notice, for cause, disability or death, in each case equal to 1/12 of the amount equal to Dr. Dinerman s target annual bonus percentage as of the termination date multiplied by Dr. Dinerman s base salary as of such date; and (3) subject to Dr. Dinerman s timely election of COBRA, the amount equal to the COBRA premiums for the lesser of (a) three months if such termination was pursuant to a Dinerman Non-Renewal Notice, disability or death, or six months in the case of termination other than by Dinerman Non-Renewal Notice, for cause, disability or death, or (b) until Dr. Dinerman became eligible to enroll in another employer-sponsored group health plan. Additionally, if Dr. Dinerman s employment was terminated by us (i) pursuant to a Dinerman Non-Renewal Notice, disability or death, the outstanding equity awards subject to the Dinerman Awards that would have vested within three months following the termination date would have vested and become fully exercisable as of such termination date, and Dr. Dinerman would have had three months from the termination date to exercise vested options under the Dinerman Awards (unless they terminated sooner pursuant to their terms), and (ii) other than by Dinerman Non-Renewal Notice, for cause, disability or death, the outstanding equity awards subject to the Dinerman Awards that would have vested within six months following the termination date would have vested and become fully exercisable as of the termination date, and Dr. Dinerman would have had six months from the termination date to exercise vested options under the Dinerman Awards (unless they terminated sooner pursuant to their terms). In each case, all other equity awards subject to the Dinerman Awards would have terminated without compensation therefore on the termination date. Furthermore, if Dr. Dinerman resigned for good reason, he would have been entitled to receive the same payments and accelerated vesting as if he had been terminated other than by Dinerman Non-Renewal Notice, for cause, disability or death, as set forth above.

Pursuant to the terms of the Dinerman Employment Agreement, in the event of a change in control of our company, 100% of the unvested outstanding equity awards granted under the Dinerman Awards would have vested and become fully exercisable immediately prior to the change in control. Additionally, if any vested equity awards held by Dr. Dinerman were not assumed or substituted for in accordance with certain conditions, we would have been obligated to pay cash to Dr. Dinerman on the change in control in exchange for the satisfaction and cancellation of the outstanding equity awards. If Dr. Dinerman s employment was terminated within 24 months following a change in

control, subject to certain conditions, he would have been entitled to receive the same payments and accelerated vesting as if he had been terminated other than by Dinerman Non-

Renewal Notice, for cause, disability or death, as set forth above; however, he would have been entitled to such payments for a period of 12 months and the vesting of the Dinerman Awards would have been accelerated by 12 months.

Effective as of September 30, 2015, Dr. Dinerman resigned from the Company to pursue other opportunities. In connection with the termination of Dr. Dinerman s employment, we agreed to pay Dr. Dinerman a severance payment in consideration for Dr. Dinerman s execution, delivery and non-revocation of a general release of claims against us in customary form.

Employment Agreement Chief Medical Officer

We entered into an employment agreement with Rochelle Hanley, M.D., as our Chief Medical Officer, or the Hanley Employment Agreement, which became effective on June 2, 2014. The Hanley Employment Agreement is subject to automatic renewals for additional one-year periods following June 2, 2015, unless either party gives the other written notice of its or her election to not renew, or a Hanley Non-Renewal Notice. Pursuant to the terms of the Hanley Employment Agreement, Dr. Hanley s base salary was initially $156,539 per year. Effective October 1, 2014, Dr. Hanley agreed to an amended base salary of $111,814. Commencing on May 5, 2015, Dr. Hanley s annual base salary was increased to $223,628, subject to annual review by our board of directors or compensation committee and, if appropriate, increase (but not decrease except in certain limited circumstances). Additionally, the Hanley Employment Agreement provides that Dr. Hanley will be eligible to receive a target annual bonus in an amount equal to 30% of her base salary in effect on June 30th of each calendar year for 2015 and after (and an amount of $57,025, prorated from the effective date of her employment agreement), which bonus will be based on our financial performance and Dr. Hanley s individual performance, in each case as determined by our board of directors or compensation committee. However, for 2014, Dr. Hanley s target annual bonus was equal to 30% of her salary in effect prior to completion of the IPO, pro-rated from June 2, 2014 through December 31, 2014. In September 2015, Dr. Hanley was paid $22,191 as a pro-rated cash bonus for 2014.

Under the Hanley Employment Agreement, on May 4, 2015, Dr. Hanley was granted (1) a stock option to purchase 30,000 shares of our common stock (subject to adjustment for stock splits), whereby 25% of the shares subject to the option were vested upon grant and 25% of the shares subject to the option will vest on each one-year anniversary of the date of grant for the next three years, so long as Dr. Hanley continues to provide service to us on each applicable vesting date; (2) an award of 70,000 shares of common stock (subject to adjustment for stock splits), whereby one-third of the shares subject to the award will vest on each one-year anniversary of the date of grant for the next three years, so long as Dr. Hanley continues to provide service to us on each applicable vesting date, subject to withholding of shares to cover tax withholding obligations arising upon the vesting of shares subject to the award; and (3) an additional award of 7,308 shares of common stock, which was fully vested upon grant, or, collectively, the Hanley Awards. The Hanley Awards were issued under and subject to the terms and conditions of the 2014 Equity Incentive Plan.

Dr. Hanley s employment with us is at-will, meaning either we or Dr. Hanley may terminate the employment relationship at any time, with or without cause. However, Dr. Hanley must provide at least 60 days written notice of resignation. If we terminate Dr. Hanley s employment, then, so long as Dr. Hanley complies with certain obligations, including execution and delivery of a general release within a specified period of time, we will pay Dr. Hanley: (1) her base salary as of the termination date for three months following the termination date, if such termination is pursuant to a Hanley Non-Renewal Notice, disability or death, or for six months in the case of termination other than by Hanley Non-Renewal Notice, for cause, disability or death; (2) three monthly payments if such termination is pursuant to a Hanley Non-Renewal Notice, disability or death, or six monthly payments in the case of termination other than by Hanley Non-Renewal Notice, for cause, disability or death, in each case equal to 1/12 of the amount equal to

Dr. Hanley s target annual bonus percentage as of the termination date multiplied by Dr. Hanley s base salary as of such date; and (3) subject to Dr. Hanley s timely election of COBRA, the amount equal to the COBRA premiums for the lesser of (a) three months if such termination is

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pursuant to a Hanley Non-Renewal Notice, disability or death, or six months in the case of termination other than by Hanley Non-Renewal Notice, for cause, disability or death, or (b) until Dr. Hanley becomes eligible to enroll in another employer-sponsored group health plan. Additionally, if Dr. Hanley s employment is terminated by us (i) pursuant to a Hanley Non-Renewal Notice, disability or death, the outstanding equity awards subject to the Hanley Awards that would have vested within three months following the termination date will vest and become fully exercisable as of such termination date, and Dr. Hanley will have three months from the termination date to exercise vested options under the Hanley Awards (unless they terminate sooner pursuant to their terms), and (ii) other than by Hanley Non-Renewal Notice, for cause, disability or death, the outstanding equity awards subject to the Hanley Awards that would have vested within six months following the termination date will vest and become fully exercisable as of the termination date, and Dr. Hanley will have six months from the termination date to exercise vested options under the Hanley Awards (unless they terminate sooner pursuant to their terms). In each case, all other equity awards subject to the Hanley Awards will terminate without compensation therefore on the termination date. Furthermore, if Dr. Hanley resigns for good reason, she will be entitled to receive the same payments and accelerated vesting as if she had been terminated other than by Hanley Non-Renewal Notice, for cause, disability or death, as set forth above.

In the event of a change in control of our company, 100% of the unvested outstanding equity awards granted under the Hanley Awards will vest and become fully exercisable immediately prior to the change in control. Additionally, if any vested equity awards held by Dr. Hanley are not assumed or substituted for in accordance with certain conditions, we will pay cash to Dr. Hanley on the change in control in exchange for the satisfaction and cancellation of the outstanding equity awards. If Dr. Hanley s employment is terminated within 24 months following a change in control, subject to certain conditions, she will be entitled to receive the same payments and accelerated vesting as if she had been terminated other than by Hanley Non-Renewal Notice, for cause, disability or death, as set forth above; however, she will be entitled to such payments for a period of 12 months and the vesting of the Hanley Awards will be accelerated by 12 months.

Potential Payments Upon Termination or Change in Control

Our executive officers will be entitled to receive certain payments and benefits upon termination of their employment or a change in control of our company, as described in the section of this prospectus entitled Employment Agreements.

Perquisites, Health, Welfare and Retirement Plans and Benefits

Health and Welfare Benefits

Our named executive officers are eligible to participate in all of our employee benefit plans, including our medical, dental, vision, group life and disability insurance plans, in each case on the same basis as other employees.

Perquisites and Personal Benefits

We do not currently provide perquisites or personal benefits to our named executive officers.

Pension Benefits and Non-Qualified Deferred Compensation

As of September 30, 2015, none of our named executive officers participated in or had account balances in qualified or non-qualified defined benefit plans sponsored by us. Commencing as of November 30, 2015, we will maintain a 401(k) defined contribution in which all of our employees age 18 and older are entitled to participate. Employees will

contribute their own funds, as salary deductions, on a pre-tax basis. Contributions will be permitted to be made up to plan limits, subject to government limitations. We do not currently intend to provide full or partial matching contributions under the 401(k) plan.

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Outstanding Equity Awards at Fiscal Year-End 2014

None of our named executive officers held any equity awards at December 31, 2014.

2014 Equity Incentive Plan

Our board of directors adopted the Viking Therapeutics, Inc. 2014 Equity Incentive Plan, or the 2014 Equity Incentive Plan, on July 2, 2014, and our stockholders approved the 2014 Equity Incentive Plan on August 1, 2014. The 2014 Equity Incentive Plan became effective on April 28, 2015. The following is only a summary of the material terms of the 2014 Equity Incentive Plan, is not a complete description of all provisions of the 2014 Equity Incentive Plan and should be read in conjunction with the 2014 Equity Incentive Plan, which is filed as an exhibit to the registration statement of which this prospectus forms a part.

Purpose. The purpose of the 2014 Equity Incentive Plan is to enhance our ability to attract highly qualified personnel, to strengthen our retention capabilities, to enhance our long-term performance and competitiveness, and to align the interests of the participants of the 2014 Equity Incentive Plan with those of our stockholders.

Plan Administration. The 2014 Equity Incentive Plan is administered by the compensation committee, although our board of directors may at any time act in lieu of the compensation committee; however, (1) in the case of awards intended to satisfy the requirements of Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code, the committee administering such awards will consist of two or more outside directors within the meaning of Section 162(m) of the Code, and (2) in the case of awards made to an employee, director or consultant who is required to file reports with respect to such individual s beneficial ownership of our capital stock with the SEC pursuant to Section 16(a) of the Exchange Act and the rules promulgated thereunder, the committee administering such awards will consist of two or more directors who are non-employee directors within the meaning of Rule 16b-3. The compensation committee may also delegate to one or more of our officers the authority to (a) designate employees (other than other officers) to be recipients of certain stock awards, and (b) determine the number of shares of common stock to be subject to such stock awards, in each case subject to certain conditions. In connection with administering the 2014 Equity Incentive Plan, the compensation committee has responsibility for determining, among other things, the recipient of each award, the type of award, the number of shares, units or dollars subject to each award and the terms and conditions of each award, including the exercise or purchase price and the vesting and duration of the award, and the terms for any modification, substitution or cancellation of awards, subject to certain conditions. Pursuant to the terms of the 2014 Equity Incentive Plan, we have agreed to indemnify any individuals who take action on behalf of the 2014 Equity Incentive Plan, so long as such action is taken in good faith, for any claims, liabilities and costs arising out of such individual s good faith performance of duties on behalf of the 2014 Equity Incentive Plan, and to reimburse any such individual for all expenses incurred with respect to the 2014 Equity Incentive Plan.

Types of Awards. The 2014 Equity Incentive Plan provides that the compensation committee may grant or issue stock options, stock appreciation rights, restricted shares, restricted stock units and unrestricted shares, deferred share units, performance and cash-settled awards and dividend equivalent rights to participants under the 2014 Equity Incentive Plan. Under the 2014 Equity Incentive Plan, the compensation committee may establish an exchange program and grant replacement awards, in each case in accordance with the terms of the 2014 Equity Incentive Plan and applicable law (including any associated stockholder approval requirements).

Authorized Shares. Initially, a total of 1,527,770 shares of our common stock have been reserved for issuance pursuant to the 2014 Equity Incentive Plan, which number is also the limit on shares of common stock available for awards of ISOs (as described under Stock Options below). The number of shares available for issuance under the 2014 Equity Incentive Plan will, unless otherwise determined by our board of directors or the compensation committee, be

automatically increased on January 1st of each year commencing on January 1, 2016 and ending on (and including) January 1, 2024, in an amount equal to 3.5% of the total number of shares of our common stock outstanding on December 31st of the preceding calendar year. The shares of common stock

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deliverable pursuant to awards under the 2014 Equity Incentive Plan will be authorized but unissued shares of our common stock, or shares of our common stock that we otherwise hold in treasury or in trust. Any shares of our common stock underlying awards that are settled in cash or otherwise expire, or are forfeited, terminated or cancelled (including pursuant to an exchange program established by the compensation committee) prior to the issuance of stock will again be available for issuance under the 2014 Equity Incentive Plan. In addition, shares of our common stock that are withheld (or not issued) in payment of the exercise price or taxes relating to an award, and shares of our common stock equal to the number surrendered in payment of any exercise price or withholding taxes relating to an award, will again be available for issuance under the 2014 Equity Incentive Plan.

Eligibility. The compensation committee will select participants from among our employees, directors and consultants, including non-employees and non-consultants to whom an offer of employment or a consulting role has been or is being extended by us. For each calendar year during the term of the 2014 Equity Incentive Plan, no participant may receive stock options, stock appreciation rights and other awards that relate to more than 25% of the maximum number of shares issuable under the 2014 Equity Incentive Plan as of April 28, 2015, subject to adjustments as permitted in the 2014 Equity Incentive Plan, and the maximum aggregate amount of cash that may be paid to any one participant during any calendar year with respect to one or more awards intended to qualify as performance-based compensation pursuant to Section 162(m) of the Code is $1.0 million. Nevertheless, stock options, stock appreciation rights and bonus awards may be made in excess of the limits described in the preceding sentence so long as such awards are not intended to qualify as performance-based compensation and are therefore not intended to be exempt from the deduction limit imposed by Section 162(m) of the Code.

Stock Options. The exercise price of stock options granted under the 2014 Equity Incentive Plan must not be less than 100% of the fair market value of our common stock on the grant date, subject to two exceptions, as set forth in the 2014 Equity Incentive Plan. The term of a stock option may not exceed ten years. If a stock option or stock appreciation right is granted to an employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, the stock option or stock appreciation right, as applicable, will not be first exercisable for any shares of our common stock until at least six months following its grant date (although the award may vest prior to such date). An incentive stock option, or ISO, is a stock option granted to qualify for tax treatment applicable to ISOs under Section 422 of the Code. A nonqualified stock option, or Non-ISO, is a stock option that is not subject to statutory requirements and limitations required for certain tax advantages allowed under Section 422 of the Code. An ISO may only be granted to our employees or employees of certain of our affiliates, including officers who are employees. An ISO granted to an employee who owns more than 10% of the combined voting power of all of our classes of stock must have an exercise price of at least 110% of the fair market value of our common stock on the grant date, and the term of the ISO may not exceed five years from the grant date. To the extent that the aggregate fair market value of shares of common stock with respect to which ISOs first become exercisable by a participant in any calendar year exceeds $100,000, such excess stock options will be treated as Non-ISOs. If expressly provided in a stock option award agreement, the exercise price for stock options will be equitably adjusted (in a manner that is reasonably intended to avoid triggering additional taxes under Section 409A of the Code) for some or all of the cash dividends or extraordinary capital distributions that we pay with respect to our shares of common stock during the period between the stock option s grant date and its exercise date. The compensation committee may, in its sole discretion, set forth in an award agreement that the participant may exercise unvested Non-ISOs, in which case the participant will receive shares of restricted common stock having the same vesting schedule that applied to the unvested stock options. The methods of payment of the exercise price of a stock option may include, among other things, cash, promissory note, other shares (subject to certain conditions), net exercise , cashless exercise, as well as other forms of legal consideration that may be acceptable to the compensation committee and specified in the applicable stock option award agreement; however, our directors and executive officers may not make payment with respect to any awards granted under the 2014 Equity Incentive Plan, or continue an extension of credit with respect to such payment, with a loan from or arranged by us in violation of applicable securities laws. The compensation

committee may establish and set forth in the applicable stock option award agreement the terms and conditions on which a stock option will remain exercisable, if at all, following termination of a participant s service. Unless

an award agreement provides otherwise: (1) if termination is due to death or disability, the stock option will remain exercisable for one year after such termination of service; and (2) if the termination is due to reasons other than for death, disability or cause, the stock option generally will remain exercisable for 30 days following termination of service. If the termination is for cause, then the stock option generally will cease to be exercisable upon termination of service or on the date when cause first existed, whichever is earlier. If there is a blackout period under our insider trading policy or applicable law that prohibits the buying or selling of shares of common stock during any part of the ten day period before the expiration of a stock option based on termination of service, the period for exercising the stock option will be extended until ten days beyond when the blackout period ends; however, no stock option will ever be exercisable after the expiration date of its original term set forth in the applicable stock option award agreement. If a participant is not entitled to exercise a stock option at the date of termination of service, or if the participant does not exercise the stock option to the extent so entitled within the time specified in the applicable stock option award agreement or in the 2014 Equity Incentive Plan, the stock option will terminate and the shares of common stock underlying the unexercised portion of the stock option will revert to the 2014 Equity Incentive Plan and become available for future awards.

Stock Appreciation Rights (SARs). Stock appreciation rights, or SARs, allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the grant date. SARs may not have a term ending more than ten years after the grant date, and must otherwise have terms consistent with those described above for stock options. The reserve of shares of common stock available for future awards under the 2014 Equity Incentive Plan will be reduced upon each exercise of a SAR that is settled through the delivery of shares of common stock to the participant. After termination of service, a recipient of SARs may exercise the SARs for the period of time stated in the recipient s SARs award agreement, which will generally be consistent with the period of time applicable to stock option awards. Additionally, the SARs award agreement may provide for settlement either in shares of common stock, cash or in any combination of shares of common stock or cash that the compensation committee may authorize pursuant to the applicable award agreement. Subject to the terms of the 2014 Equity Incentive Plan, the compensation committee will determine the other terms of SARs; however, the award agreement for each SAR must set forth terms and conditions that are consistent with those for a stock option. The per share exercise price for the shares of common stock to be issued pursuant to the exercise of SARs must not be less than 100% of the fair market value of our common stock on the grant date.

Restricted Shares and Restricted Stock Units (RSUs). Restricted share awards are grants of shares of our common stock that vest in accordance with terms and conditions established by the compensation committee and as set forth in the applicable award agreement. Restricted stock units, or RSUs, give recipients the right to acquire a specified number of shares of our common stock at a future date upon the satisfaction of certain vesting criteria established by the compensation committee and as set forth in an RSU award agreement. Unlike restricted shares, the shares underlying RSUs will not be issued until the RSUs have vested and are settled. The compensation committee may impose restrictions in the award agreement granting restricted shares or RSUs, including but not limited to restrictions concerning voting rights, transferability and receipt of dividends, which restrictions will lapse pursuant to circumstances or based upon criteria selected by the compensation committee, such as the participant s duration of continuous service, individual, group or divisional performance criteria, company performance or other criteria selected by the compensation committee. Restricted shares and RSUs may be awarded for such consideration as the compensation committee may determine, including without limitation cash, past or future services or any other form of legal consideration that may be acceptable to the compensation committee and permissible under applicable law. Except as set forth in the applicable award agreement or as determined by the compensation committee, upon termination of a participant s service for any reason, the participant will forfeit the restricted shares and RSUs to the extent the participant s interest therein has not vested on or before the termination date; however, if restricted shares are forfeited for any reason, we will return the purchase price to the participant to the extent either set forth in the applicable award agreement or required by applicable law. Unless settled for cash in lieu of shares, vested restricted

shares will be settled in unrestricted shares.

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Unrestricted Shares. Unrestricted shares will vest in full upon the grant date and therefore are not subject to forfeiture restrictions. Unrestricted shares may be granted to participants, selected by the compensation committee in its sole discretion, who elect to pay for such unrestricted shares or to receive unrestricted shares in lieu of cash bonuses that would otherwise be paid.

Deferred Share Units (DSUs). Deferred share units, or DSUs, represent the right to receive shares of our common stock on a future date. The compensation committee may make DSU awards to participants pursuant to award agreements regardless of whether there is a deferral of such participants compensation and may permit directors, members of management or highly compensated employees to forego the receipt of cash or other compensation (including shares settled for any RSU award) and in lieu thereof credit to an internal account for the 2014 Equity Incentive Plan a number of DSUs having a fair market value equal to the shares of common stock and other compensation deferred. Credits will be made at the end of each calendar quarter during which compensation is deferred. Unless otherwise provided in an award agreement, any shares subject to DSUs are 100% vested at all times and the DSUs are settled by our delivery of one share for each DSU, in five substantially equal annual installments that are issued before the last day of each of the five calendar years after the date on which the participant s service terminates for any reason, subject to certain conditions.

Performance and Cash-Settled Awards. Performance awards, including performance units, may be granted under the 2014 Equity Incentive Plan. The compensation committee may (but is not required to) designate a performance award as a performance compensation award that is intended to be exempt from limitations under Section 162(m) of the Code. A participant is eligible to receive payment in respect of a performance compensation award only if the performance goals for such award are achieved and the performance formula as applied against such performance goals determines that all or some portion of such participant s award has been earned for the performance period. The compensation committee will decide the length of a certain performance period, but such period may not be less than one fiscal year. The compensation committee is required under the 2014 Equity Incentive Plan to specify in writing the performance period to which the performance compensation award relates, one or more goals for the performance period and an objective formula by which to measure whether or the extent to which the award is earned on the basis of the level of performance achieved with respect to one or more performance measures. Such criteria must be specified in writing no later than the earlier of the date that is 90 days after the commencement of the performance period and the date on which 25% of the performance period elapses. Once established for a performance period, the performance goals and performance formula applicable to the award may not be amended or modified in a manner that would cause the compensation payable under the award to fail to constitute qualified performance-based compensation under Section 162(m) of the Code; however, the compensation committee may exercise negative discretion to reduce or eliminate the amount of the performance compensation award if, in its sole discretion, such reduction or elimination is appropriate. The maximum performance compensation award that any one participant may receive for any one performance period will not exceed 381,942 shares of our common stock, subject to adjustments as permitted in the 2014 Equity Incentive Plan, or, for performance units to be settled in cash, the greater of $1.0 million or the fair market value of such number of shares of common stock on the grant date.

Dividend Equivalent Rights. The compensation committee may grant dividend equivalent rights either in tandem with an award (other than a stock option or SAR) or as a separate award, to participants on terms and conditions determined by the compensation committee at the time of grant and set forth in an award agreement. Unless otherwise provided in the award agreement, dividend equivalent rights will be paid out on the record date for the underlying dividends if the award occurs on a stand-alone basis, and on the vesting or later settlement date for an award if the dividend equivalent rights are granted as part of it. Dividend equivalent rights are settled in shares with cash paid in lieu of fractional shares, unless the applicable award agreement provides for settlement in cash of all or part of the dividend equivalent right.

Taxes. Award recipients are solely responsible and liable for the satisfaction of all taxes and penalties that may arise in connection with awards granted pursuant to the 2014 Equity Incentive Plan, including any taxes arising from Section 409A of the Code (although awards are generally intended to be exempt from, or compliant with,

its restrictions). Our obligation to deliver shares of common stock (or to pay cash) to an award holder is at all times subject to such person s prior or coincident satisfaction of all required withholding taxes.

Non-Transferability of Awards. Unless the compensation committee provides otherwise in an award agreement, or unless transferred pursuant to the terms of a domestic relations order as approved by the compensation committee, the 2014 Equity Incentive Plan generally does not allow for the transfer of awards and only the participant who is granted an award may exercise an award during his or her lifetime.

Certain Adjustments. In the event of certain changes in our capitalization, such as stock splits, reverse stock splits, stock dividends, combinations, recapitalizations or reclassifications with respect to our common stock, or mergers, consolidations, changes in organization form or other increases or decreases in the number of issued shares of common stock effected without receipt or payment of consideration by us, the compensation committee will equitably adjust the number and price of shares covered by each outstanding award and the total number of shares authorized for issuance under the 2014 Equity Incentive Plan to prevent diminution or enlargement of the benefits or potential benefits available under the 2014 Equity Incentive Plan. In the event of any proposed winding up, dissolution or liquidation of our company, other than as part of a change in control, we will notify each participant as soon as practicable and all awards will terminate immediately prior to the consummation of such proposed transaction.

Change in Control. In the event of a change in control of our company, unless otherwise provided in any award agreement or other applicable agreements between us or any of our affiliates, on the one hand, and the applicable participant, on the other hand, each outstanding award will be assigned to or assumed or substituted by the surviving or successor company or a parent or subsidiary of such company upon consummation of the change in control. Notwithstanding the foregoing, the compensation committee has the discretion to take one or more of the following actions with respect to any or all awards: (1) accelerate the vesting of the award and provide for its termination if not exercised at or prior to the effective time of the change in control; (2) arrange for the lapse of any reacquisition or repurchase right held by us; (3) arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or successor company; (4) cancel or arrange for the cancellation of the stock award in exchange for cash or other consideration; (5) make a payment equal to the excess of (a) the value of the property the participant would have received upon exercise of the stock award immediately prior to the effective time of the change in control, over (b) the exercise price payable in connection with the stock award; or (6) make such other modifications, adjustments or amendments to outstanding awards as the compensation committee deems necessary or appropriate, subject to the terms set forth in the 2014 Equity Incentive Plan. The compensation committee is not required to take the same action or actions with respect to all awards granted under the 2014 Equity Incentive Plan, or portions thereof, or with respect to all participants, and may take different actions with respect to the vested and unvested portions of any award. A change in control generally includes, among other things: (i) an acquisition by a person or entity of more than 50% of the combined voting power of our then-outstanding securities, (ii) a change in board control whereby individuals who, on the date the 2014 Equity Incentive Plan is first effective, constituted our board of directors (or their approved replacements), cease to constitute a majority of our board of directors, (iii) a merger, subject to certain exceptions, (iv) a sale of all or substantially all of our assets, or (v) a liquidation or dissolution of our company.

Forfeiture and Recoupment. To the extent provided in the applicable award agreement, we have the following recourse against an award recipient who does not comply with certain covenants, including non-competition, non-solicitation, confidentiality, inventions or secrecy covenants: (1) we may terminate any outstanding, unexercised, unexpired, unpaid or deferred awards; (2) we may rescind any exercise, payment or delivery pursuant to the award; or (3) we may recapture any shares of common stock (whether restricted or unrestricted) or proceeds from the award recipient s sale of shares of common stock issued pursuant to the award. Unless otherwise specifically provided in the applicable award agreement, and to the extent permitted by applicable law, essentially the same forfeiture and recoupment rights are available to us, in addition to a right to reimbursement for all or any portion of any awards

granted under the 2014 Equity Incentive Plan, with respect to awards that are granted, vested or settled during certain periods affected by an award recipient s fraud or misconduct, or a financial restatement, and all awards are subject to any recoupment that is required under applicable law.

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Amendment; Termination; Governing Law. The 2014 Equity Incentive Plan may be amended or terminated by our board of directors as it deems advisable; however, stockholder approval is required for any change that increases the total number of shares reserved for issuance pursuant to awards. No amendment may materially and adversely impact any participant s vested rights under an award that was previously granted under the 2014 Equity Incentive Plan without the consent of either the impacted participant or participants holding a majority of awards being similarly impacted. The 2014 Equity Incentive Plan will terminate on April 28, 2025, if not sooner terminated by our board of directors. Delaware law will generally govern and control any issues arising under the 2014 Equity Incentive Plan and the awards issued thereunder.

2014 Employee Stock Purchase Plan

Our board of directors adopted the Viking Therapeutics, Inc. 2014 Employee Stock Purchase Plan, or the 2014 Employee Stock Purchase Plan, on July 31, 2014, and our stockholders approved the 2014 Employee Stock Purchase Plan on August 1, 2014. The 2014 Employee Stock Purchase Plan became effective on April 28, 2015. The following is only a summary of the material terms of the 2014 Employee Stock Purchase Plan, is not a complete description of all provisions of the 2014 Employee Stock Purchase Plan and should be read in conjunction with the 2014 Employee Stock Purchase Plan, which is filed as an exhibit to the registration statement of which this prospectus forms a part.

Purpose. The purpose of the 2014 Employee Stock Purchase Plan is to provide our eligible employees with the opportunity to acquire a proprietary interest in our company through participation in a plan designed to qualify as an employee stock purchase plan under Section 423 of the Code.

Plan Administration. The 2014 Employee Stock Purchase Plan is administered by the compensation committee, although our board of directors may at any time act in lieu of the compensation committee.

Authorized Shares. Initially, a total of 458,331 shares of our common stock have been reserved for issuance pursuant to the 2014 Employee Stock Purchase Plan. The number of shares available for issuance under the 2014 Employee Stock Purchase Plan will, unless otherwise determined by our board of directors or the compensation committee, be automatically increased on January 1st of each year commencing on January 1, 2016 and ending on (and including) January 1, 2024, in an amount equal to 1% of the total number of shares of our common stock outstanding on December 31st of the preceding calendar year. The shares of common stock available for purchase pursuant to the 2014 Employee Stock Purchase Plan will be authorized but unissued shares of our common stock, shares of our common stock that we otherwise hold in treasury or shares of our common stock that were purchased on the open market in arms length transactions in accordance with applicable securities laws.

Eligibility. Each of our employees who (1) is an employee on the first date of any offering under the 2014 Employee Stock Purchase Plan, (2) is customarily scheduled to work for more than 20 hours per week and more than five months per calendar year, and (3) meets such other criteria as may be determined by the compensation committee (consistent with Section 423 of the Code), is eligible to participate in the 2014 Employee Stock Purchase Plan for each purchase period within such offering. Unless the compensation committee, in its discretion, decides otherwise before an offering commences, any employee who first meets the foregoing criteria after the commencement of an offering under the 2014 Employee Stock Purchase Plan shall receive the option to participate in such offering on the first day of the next purchase period that begins within the offering, and any such option will have the same characteristics as those originally granted to other participants in such offering, subject to certain exceptions.

No employee may purchase shares of our common stock under the 2014 Employee Stock Purchase Plan and, if applicable, under any of our other employee stock purchase plans, in excess of $25,000 of the fair market value

of our common stock (as of the date of grant of the purchase right) in any calendar year. Additionally, no employee will be permitted during an offering to purchase a number of shares of our common stock that have a fair market value on the first date of the offering in excess of $75,000, or such lesser number as is determined by either the compensation committee or pursuant to the terms of the 2014 Employee Stock Purchase Plan, subject to certain advance notice requirements in the event the threshold is lowered.

Moreover, no purchase rights will be granted under the 2014 Employee Stock Purchase Plan to any employee if such employee would, immediately after such rights are granted, own, or hold outstanding options or other rights to purchase, stock possessing 5% or more of the total combined voting power or value of all classes of our capital stock.

Participation. In order to participate in the 2014 Employee Stock Purchase Plan for a particular offering under the 2014 Employee Stock Purchase Plan and any purchase period therein, employees must complete and file with the compensation committee the prescribed enrollment forms, which will include, without limitation, a purchase agreement and a payroll deduction authorization. The employee may authorize a payroll deduction of any multiple of 1% of his or her compensation, up to a maximum equal to 25% of the employee s compensation. However, the compensation committee may, in its sole and absolute discretion, allow payroll deductions in dollar increments that are at least equal to $25 per pay period. The authorized deduction rate will continue in effect for the entire offering and each succeeding offering under the 2014 Employee Stock Purchase Plan, unless the employee withdraws from the offering. The purchase price per share of our common stock under the 2014 Employee Stock Purchase Plan may not be less than, and will initially be equal to, the lesser of: (1) 85% of the fair market value per share of our common stock on the first day of the offering, or (2) 85% of the fair market value per share of our common stock on the date the purchase right is exercised, which will be the last day of the applicable purchase period.

Purchase Periods. Shares of our common stock will be offered for purchase under the 2014 Employee Stock Purchase Plan as determined by the compensation committee through a series of successive offerings, each consisting of one or more purchase periods.

Each offering under the 2014 Employee Stock Purchase Plan will have a term of 24 months and consist of four consecutive purchase periods of six months each (unless the compensation committee decides otherwise before a new offering begins). Offerings will generally begin on or about each May 21st and November 21st (or the next trading day if such date is not a trading day); however, the first offering and the first purchase period under the 2014 Employee Stock Purchase Plan commenced on April 29, 2015.

Prior to the commencement of any future offering under the 2014 Employee Stock Purchase Plan, the compensation committee may determine that the current offering shall end, may commence a new offering on the first day after the end of such terminal purchase period (or any desired later date), and may decide that future offerings will consist of one or more consecutive purchase periods, each to be of such duration as determined by the compensation committee; however, no offering will exceed 27 months and no purchase period will exceed one year. The compensation committee has the sole and absolute discretion to prospectively establish offering and purchase periods at monthly, quarterly, semi-annual or annual intervals over the term of the 2014 Employee Stock Purchase Plan, subject to certain advance notice requirements.

A participant may withdraw from a purchase period within an offering by filing the prescribed purchase agreement and a payroll deduction authorization with the compensation committee, on or prior to the date required by the compensation committee in its sole and absolute discretion. Upon withdrawal, the participant will have the option to either (1) receive a refund of the payroll deductions which the employee made under the 2014 Employee Stock Purchase Plan during the applicable purchase period, without interest, or (2) have the payroll deductions held for the purchase of shares of our common stock at the end of the applicable purchase period. An employee s withdrawal from

a particular purchase period will be irrevocable, and an employee must file with the compensation committee the prescribed enrollment forms if the employee wishes to resume participation in a subsequent purchase period.

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Notwithstanding the foregoing, in the event that the fair market value per share of our common stock is lower at the end of a purchase period within an offering (other than the last purchase date therein) than it was on the first day of the offering, such offering shall automatically end on the purchase date (after giving effect to the purchases for such purchase period) and all participants shall be deemed to have automatically withdrawn from the offering immediately after the exercise of their option on such purchase date and to have enrolled as participants in a new offering that automatically begins on or about the day following such purchase date.

Certain Adjustments. In the event of certain changes in our capitalization, such as stock splits, reverse stock splits, stock dividends, combinations, recapitalizations or reclassifications with respect to our common stock, or mergers, consolidations, changes in organization form or other increases or decreases in the number of issued shares of common stock effected without receipt or payment of consideration by us, the compensation committee will equitably adjust (1) the number and price of shares covered by each outstanding purchase right, (2) the number of shares purchasable per employee on any one purchase date, and (3) the total number of shares authorized for issuance under the 2014 Employee Stock Purchase Plan and any particular offering under the 2014 Employee Stock Purchase Plan, in each case to prevent diminution or enlargement of the benefits or potential benefits available under the 2014 Employee Stock Purchase Plan.

Corporate Transactions. In the event of certain significant corporate transactions, including the consummation of: (1) a transaction or series of related transactions whereby a person becomes the beneficial owner of securities representing more than 50% of the combined voting power of our then-outstanding securities, subject to certain exceptions, (2) a merger or consolidation of our company with any other person whereby we do not survive the transaction, (3) a sale of all or substantially all of our assets, and (4) the winding up, liquidation or dissolution of our company, any surviving or acquiring entity (or its parent company) may assume or continue, or substitute for similar rights, the outstanding purchase rights under the 2014 Employee Stock Purchase Plan. If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such purchase rights, then all outstanding purchase rights will automatically be exercised within ten business days prior to the corporate transaction (subject to certain limitations), and the purchase rights will terminate immediately after such purchase.

Amendment; Termination; Governing Law. The compensation committee may alter, amend, suspend or discontinue the 2014 Employee Stock Purchase Plan; however, no such action may adversely affect then-outstanding purchase rights unless necessary or desirable to comply with applicable law. We will obtain stockholder approval of any amendment to the 2014 Employee Stock Purchase Plan as required by applicable law or listing requirements. Unless it is sooner terminated by the compensation committee, the 2014 Employee Stock Purchase Plan will terminate upon the earlier of (1) April 28, 2025, or (2) the date on which all shares available for issuance under the 2014 Employee Stock Purchase Plan have been sold pursuant to purchase rights exercised under the 2014 Employee Stock Purchase Plan.

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CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the director and executive officer compensation arrangements discussed in the section of this prospectus entitled Executive Compensation, the following is a summary of material provisions of transactions since our inception in September 2012 that we have been a party to and in which the amount involved exceeded or will exceed $120,000, and in which any of our directors, executive officers, beneficial owners of more than 5% of our capital stock, or their immediate family members, have had or will have a direct or indirect material interest.

Common Stock Issuances to and Convertible Promissory Notes with Executives

In conjunction with the formation of our company, in September 2012, we issued and sold 2,650,000 shares of our common stock to Dr. Lian, our President, Chief Executive Officer and Co-Founder, and 2,100,000 shares of our common stock to Dr. Dinerman, our former Chief Operating Officer and Co-Founder. These shares were issued at a deemed fair value of $0.01 per share, in each case in exchange for the contribution of certain intellectual property and assets to us having a deemed value of $26,500 and $21,000, respectively. On May 4, 2015, we repurchased 3,010,596 of these shares at a price of $0.00001 per share for an aggregate repurchase price of $30.00.

Also in conjunction with the formation of our company, in September 2012, we issued and sold convertible promissory notes in an aggregate principal amount of $15,000 and $20,000 to Dr. Lian and Dr. Dinerman, respectively. These convertible promissory notes, which had an initial maturity date of September 28, 2014, were amended on September 28, 2014 to provide for a maturity date of April 30, 2015. These convertible promissory notes accrued interest at the lesser of (1) the short-term Applicable Federal Rate (for short-term loans) as published by the Internal Revenue Service, and (2) the maximum rate permissible by law. An aggregate principal amount of $35,000 and accrued interest of $3,244 was outstanding under these convertible notes as of May 4, 2015, on which date the notes were converted into an aggregate of 6,373 shares of our common stock. In April 2013, we issued and sold 250,000 shares of our common stock to Dr. Hanley, our Chief Medical Officer, at a price of $0.01 per share, for an aggregate purchase price of $2,500. As partial consideration for the issuance by us of the 250,000 shares of our common stock to Dr. Hanley, Dr. Hanley issued to us a promissory note, dated as of April 15, 2013, in the aggregate principal amount of $2,497.50. Simple interest on the unpaid principal balance of the promissory note accrued at the lesser of: (1) the short-term Applicable Federal Rate, as published by the Internal Revenue Service, and (2) the highest lawful rate permissible under applicable usury laws. All unpaid principal and all accrued and previously unpaid interest under the promissory note were due and payable in full on April 15, 2016. On May 15, 2014, we forgave all of the outstanding principal and unpaid interest under the promissory note, which totaled $2,581 as of such date. On May 4, 2015, we repurchased 158,453 of these shares at a price of $0.00001 per share for an aggregate repurchase price of $2.00.

In May 2013, we issued and sold a convertible promissory note in an aggregate principal amount of $55,350 to Dr. Lian. This convertible promissory note had a maturity date of May 15, 2015 and accrued interest at the lesser of (1) the short-term Applicable Federal Rate as published by the Internal Revenue Service, and (2) the maximum rate permissible by law. An aggregate principal amount of $55,350 and accrued interest of $4,213 was outstanding under this convertible note as of May 4, 2015, on which date the note was converted into 9,927 shares of our common stock.

In February 2014, we issued and sold 1,000,000 shares of our common stock to Dr. Lian at a deemed fair value of $0.01 per share in exchange for the contribution by Dr. Lian of services to us having a deemed value of $10,000. On May 4, 2015, we repurchased 633,810 of these shares at a price of $0.00001 per share for an aggregate repurchase price of $6.00.

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Equity Awards to Executive Officers

We have granted, and will in the future grant, stock options and other equity awards to our named executive officers, other executive officers and certain of our directors. See the sections of this prospectus entitled Management Non-Employee Director Compensation and Executive Compensation Employment Agreements .

Agreements with Ligand

On May 21, 2014, we entered into the Master License Agreement with Ligand, pursuant to which Ligand granted us worldwide rights under (1) patents related to SARM Compounds, TRß Compounds, FBPase Compounds, EPOR Compounds and DGAT-1 Compounds; (2) related know-how controlled by Ligand; and (3) physical quantities of SARM, TRß, FBPase, EPOR and DGAT-1 Compounds. Under the terms of the Master License Agreement, we issued to Ligand, at the closing of the initial public offering of shares of our common stock, 3,655,964 shares of our common stock having an estimated aggregate value of $29.2 million, and we agreed to make certain development and commercial milestone payments and single-digit royalties on future worldwide net product sales. In connection with the Master License Agreement, we also entered into the Loan and Security Agreement, the Ligand Note, the Registration Rights Agreement and a sublease agreement. Under the sublease agreement with Ligand, we were required to pay Ligand base rent in the amount of approximately $13,500 per month, as well as our pro rata portion of certain operating expenses, through December 31, 2014. Further details regarding the Master License Agreement, the Loan and Security Agreement, the Ligand Note and the Registration Rights Agreement are discussed in the section of this prospectus entitled Business Agreements with Ligand .

Limitation of Liability and Indemnification of Officers and Directors

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors are not personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

- any breach of their duty of loyalty to our company or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the General Corporation Law of the State of Delaware, or the DGCL; or
- any transaction from which they derived an improper personal benefit.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal. If the DGCL is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the DGCL.

Our amended and restated certificate of incorporation provides that we will, under certain circumstances, indemnify our directors, officers, employees or agents, subject to any provisions contained in our amended and restated bylaws. Our amended and restated bylaws provide that we will indemnify, to the fullest extent permitted by law, any person who is or was or is made a party or is threatened to be made a party to, or is otherwise involved in, any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was one of our directors or

officers, or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against all expense, liability and loss (including, among other things, attorney s fees and amounts paid in settlement) reasonably incurred or suffered by such director, officer, employee or agent in connection therewith, subject to certain conditions. Our amended and restated bylaws also provide us with the power to, to the extent authorized by our board of directors, grant rights to indemnification and to advancement of expenses to any of our employees or agents to the fullest extent indemnification may be granted to our directors and officers. In addition, our amended and restated bylaws also provide that we must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to certain exceptions.

Further, we have indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the DGCL. These indemnification agreements require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require us to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding, subject to certain exceptions. We believe that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

The limitation of liability and indemnification provisions that are included in our amended and restated certificate of incorporation, amended and restated bylaws and in indemnification agreements that we entered into with our directors and executive officers may discourage stockholders from bringing a lawsuit against our directors and executive officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against our directors and executive officers even though an action, if successful, might benefit us and other stockholders. Further, a stockholder s investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and executive officers as required by these indemnification provisions. At present, we are not aware of any pending litigation or proceeding involving any person who is or was one of our directors, officers, employees or other agents or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, for which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

Our amended and restated bylaws provide that we may purchase and maintain insurance, at our expense, to protect us and any person who is or was a director, officer, employee or agent of us or is or was serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not we would have the power to indemnify such person against such expense, liability or loss under the DGCL. We maintain insurance under which, subject to the limitations of the insurance policies, coverage is provided to our directors and executive officers against loss arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or executive officer, including claims relating to public securities matters, and to us with respect to payments that may be made by us to these directors and executive officers pursuant to our indemnification obligations or otherwise as a matter of law.

Certain of our non-employee directors may, through their relationships with their employers, be insured or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, we have been informed 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.

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Policies and Procedures for Related Party Transactions

Our board of directors has adopted a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy covers, 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, the amount involved exceeds $120,000, and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness, and employment by us of a related person. A related person is any individual who is, or who has been since the beginning of our last fiscal year, one of our directors or executive officers, or a nominee to become one of our directors, or any person known to be the beneficial owner of more than 5% of any class of our voting securities, or any immediate family member of any of the foregoing persons. Additionally, any firm, corporation or other entity by which any of the foregoing persons is employed or in which such person is a general partner or principal, or in a similar position, or in which such person has a 10% or greater beneficial ownership interest, will also be deemed to be a related person. Transactions involving compensation for services provided to us as an employee, consultant or director are not considered related-person transactions under this policy. As provided by our audit committee charter, our audit committee is responsible for reviewing and approving in advance any related party transaction.

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PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of October 31, 2015, and the beneficial ownership of our common stock as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each of our named executive officers;
- each of our directors;
- all of our current directors and executive officers as a group; and
- each person, or group of affiliated persons, known by us to be the beneficial owner of more than five percent of any class of our voting securities.

We have determined beneficial ownership in accordance with the rules of the Securities and Exchange Commission. We have deemed shares of our common stock subject to options that are currently exercisable or exercisable within 60 days of October 31, 2015 and convertible securities that are currently convertible or convertible within 60 days of October 31, 2015 to be outstanding and to be beneficially owned by the person holding the option for the purpose of computing the percentage ownership of that person but have not treated them as outstanding for the purpose of computing the percentage ownership of any other person.

We have based percentage ownership of our common stock before this offering on 9,678,312 shares of our common stock outstanding as of October 31, 2015.

We have based percentage ownership of our common stock after this offering on 9,678,312 shares of our common stock outstanding as of October 31, 2015 and assuming the sale of shares of our common stock in this offering. As of October 31, 2015, Ligand had the option to receive a cash payment from us, in the aggregate amount of approximately $5,325,556, in lieu of receiving the Note Shares.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Viking Therapeutics, Inc., 12340 El Camino Real, Suite 250, San Diego, CA 92130. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all of our shares that they beneficially owned, subject to community property laws where applicable.

	Common Stock Beneficially Owned Before this Offering		Common Stock Beneficially Owned After this Offering			
			Assuming No Exercise of Option to Purchase Additional Shares		Assuming Full Exercise of Option to Purchase Additional Shares	
Beneficial Owner Name	**Shares**	**Percentage**	**Shares**	**Percentage**	**Shares**	**Percentage**

Greater than 5% Stockholders:							
Ligand Pharmaceuticals Incorporated(1)	4,780,964		49.4%	4,780,964	%	4,780,964	%
Named Executive Officers and Directors:							
Brian Lian, Ph.D.	1,474,973	(2)	15.2%	1,474,973		1,474,973	%
Michael Morneau	83,926	(3)	*	83,926	*	83,926	*
Michael Dinerman, M.D. (4)	600,366	(5)	6.2%	600,366	%	600,366	%
Matthew W. Foehr							
Lawson Macartney, DVM, Ph.D.							
Matthew Singleton							
Stephen W. Webster							
All current executive officers and directors as a group (7 persons)	1,735,376	(6)	17.9%	1,735,376	%	1,735,376	%

* Denotes less than 1%

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(1) Ligand Pharmaceuticals Incorporated s address is 11119 North Torrey Pines Rd., Suite 200, San Diego, CA 92037. Beneficial ownership is based solely on information contained in the Schedule 13D/A filed with the Securities and Exchange Commission on June 1, 2015 by Ligand Pharmaceuticals Incorporated.

(2) Consists of: (a) 1,453,098 shares of common stock owned directly, of which 999,408 are vested or will vest within 60 days of October 31, 2015, and (b) 21,875 shares of common stock issuable upon exercise of options exercisable within 60 days of October 31, 2015. 30,000 of the shares of common stock owned directly by Dr. Lian have been pledged as collateral for a personal loan issued to Dr. Lian.

(3) Consists of: (a) 77,551 shares of common stock owned directly, of which 10,551 are vested or will vest within 60 days of October 31, 2015, and (b) 6,375 shares of common stock issuable upon exercise of options exercisable within 60 days of October 31, 2015.

(4) Dr. Dinerman resigned from his position as our Chief Operating Officer effective as of September 30, 2015.

(5) Consists of: (a) 589,116 shares of vested common stock owned directly, and (b) 11,250 shares of common stock issuable upon exercise of options exercisable within 60 days of October 31, 2015.

(6) Consists of: (a) 1,699,626 shares of common stock owned directly by all of our current executive officers and directors, of which 1,063,163 are vested or will vest within 60 days of October 31, 2015, and (b) 35,750 shares of common stock issuable upon exercise of options exercisable within 60 days of October 31, 2015.

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DESCRIPTION OF CAPITAL STOCK

General

The following description summarizes the most important terms of our capital stock. Because it is only a summary of the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, it does not contain all of the information that may be important to you. For a complete description of the matters set forth in this Description of Capital Stock, you should refer to our amended and restated certificate of incorporation, amended and restated bylaws and the Registration Rights Agreement, each of which are included as exhibits to the registration statement of which this prospectus forms a part, and to the applicable provisions of Delaware law. Our authorized capital stock consists of 300,000,000 shares of common stock, $0.00001 par value per share, and 10,000,000 shares of undesignated preferred stock, $0.00001 par value per share.

As of September 30, 2015, there were 9,783,312 shares of our common stock outstanding. Our board of directors is authorized, without stockholder approval except as required by the Nasdaq Rules, to issue additional shares of our capital stock.

Common Stock

Dividend Rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.

Voting Rights

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. Our amended and restated certificate of incorporation does not provide for cumulative voting for the election of directors, and it establishes a classified board of directors that is divided into three classes with staggered three-year terms. Only the directors in one class will be subject to election at each annual meeting of our stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms.

No Preemptive or Similar Rights

Our common stock is not entitled to preemptive rights, and is not subject to conversion, redemption or sinking fund provisions.

Right to Receive Liquidation Distributions

If we become subject to a liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Fully Paid and Non-Assessable

All of the outstanding shares of our common stock are, and the shares of our common stock to be issued pursuant to this offering will be, fully paid and non-assessable.

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Preferred Stock

Our board of directors is authorized, subject to limitations prescribed by Delaware law, to issue up to 10,000,000 shares of our preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, and to fix the designation, powers, preferences, and rights of the shares of each series and any of its qualifications, limitations or restrictions, in each case without further vote or action by our stockholders. Our board of directors can also increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

Equity Awards

As of September 30, 2015, options to purchase 410,144 shares of our common stock with a weighted average exercise price of $8.41 per share were outstanding, restricted stock awards representing an aggregate of 772,967 shares of our common stock were unvested and outstanding, and 84,000 restricted stock units were outstanding.

Outstanding Warrants

As of September 30, 2015, warrants to purchase an aggregate of 82,500 shares of our common stock with a weighted average exercise price of $10.00 per share were outstanding.

Ligand Convertible Note

As of September 30, 2015, the aggregate outstanding principal amount under the Secured Convertible Promissory Note, or the Ligand Note, that we previously issued to Ligand Pharmaceuticals Incorporated, or Ligand, plus all accrued and previously unpaid interest thereon, was approximately $2,652,361. In accordance with the Loan and Security Agreement with Ligand, dated May 21, 2014, as amended on April 8, 2015, or the Loan and Security Agreement, this offering may constitute a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended, or the Securities Act, in which case, following consummation of this offering, Ligand may elect to convert the Ligand Note into shares of our common stock and/or cash in an aggregate amount equal to 200% of the principal amount of the Ligand Note plus all accrued and previously unpaid interest thereon. Additionally, pursuant to the Loan and Security Agreement, Ligand has agreed that it will not, until the earlier of (1) 270 days from the date of conversion of the Ligand Note or (2) April 28, 2016, sell or otherwise transfer or dispose of the shares of common stock issuable upon conversion of the Ligand Note.

Therefore, upon consummation of this offering, we may be obligated to issue to Ligand (1) an aggregate of 663,090 shares of our common stock, (2) cash in the amount of $5,304,722, or (3) a combination of shares of our common stock and cash in an amount equal to $5,304,722, in each case based on $2,652,361 of principal and interest outstanding under the Ligand Note as of September 30, 2015. See the section of this prospectus entitled Business Agreements with Ligand Loan and Security Agreement for additional information regarding the Loan and Security Agreement and the Ligand Note.

Registration Rights

On May 21, 2014, we entered into a Registration Rights Agreement with Ligand, or the Registration Rights Agreement, pursuant to which we agreed, among other things, that we will file with the Securities and Exchange Commission, by no later than January 23, 2016, a Registration Statement on Form S-1 under the Securities Act

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that covers the resale of (1) the securities issued by us to Ligand pursuant to the Master License Agreement we previously entered into with Ligand and the securities issuable by us to Ligand pursuant to the Ligand Note, or, collectively, the Viking Securities, (2) the shares of our common stock issued or issuable upon conversion of the Viking Securities, if applicable, and (3) the shares of our common stock issued as a dividend or other distribution with respect to, in exchange for or in replacement of the Viking Securities. See the section of this prospectus entitled Business Agreements with Ligand Registration Rights Agreement for a description of these registration rights.

We issued to the representative of the underwriters for our initial public offering as additional compensation a warrant, or the Representative s Warrant, to purchase an aggregate of 82,500 shares of our common stock. Pursuant to the terms of the Representative s Warrant, the holders of 51% of the shares issuable upon exercise of the Representative s Warrant, or the Registrable Warrant Shares, have the right to demand, on one occasion, the registration by us of the Registrable Warrant Shares. Additionally, we have agreed under the terms of the Representative s Warrant to provide the holder of the Registrable Warrant Shares with certain piggyback registration rights. See the section of this prospectus entitled Business Representative s Warrant Registration Rights for a description of these registration rights.

Anti-Takeover Provisions

Certain provisions of Delaware law, along with certain provisions of our amended and restated certificate of incorporation and our amended and restated bylaws, may have the effect of delaying, deferring or discouraging another person from acquiring control of our company. These provisions are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed, in part, to encourage persons seeking to acquire control of our company to first negotiate with our board of directors. However, these provisions could have the effect of delaying, discouraging or preventing attempts to acquire us, which could deprive our stockholders of opportunities to sell their shares of common stock at prices higher than prevailing market prices.

Delaware Law

We are subject to the provisions of Section 203 of the General Corporation Law of the State of Delaware, or the DGCL, regulating corporate takeovers. In general, those provisions prohibit a public Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- the transaction is approved by the board of directors before the date the interested stockholder attained that status;
- upon consummation of the transaction which 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; or
- on or after the date of the transaction, the transaction is approved by the board of directors and authorized at a meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 of the DGCL defines a business combination to include the following:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

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subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 of the DGCL defines an interested stockholder as any entity or person beneficially owning, or who within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any such entity or person.

A Delaware corporation may opt out of this provision by express provision in its original certificate of incorporation or by amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out of, and do not currently intend to opt out of, this provision. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire our company.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Our amended and restated certificate of incorporation and our amended and restated bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes relating to the control of our board of directors or management team, including the following:

Board of Directors Vacancies. Our amended and restated certificate of incorporation and amended and restated bylaws authorize only our board of directors to fill vacant directorships, including newly created seats. In addition, the number of directors constituting our board of directors can be set only by a resolution adopted by a majority vote of our entire board of directors. These provisions would prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our board of directors and promotes continuity of management.

Classified Board. Our amended and restated certificate of incorporation and amended and restated bylaws provide that our board of directors is classified into three classes of directors. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of our company as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors. See the section of this prospectus entitled Management Board of Directors .

Stockholder Action; Special Meeting of Stockholders. Our amended and restated certificate of incorporation provides that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock would not be able to amend our amended and restated bylaws or remove directors without

holding a meeting of our stockholders called in accordance with our amended and restated bylaws. Our amended and restated bylaws further provide that special meetings of our stockholders may be called only by a majority of our board of directors, the Chairperson of our board of directors, our Chief Executive Officer or our President, thus prohibiting a stockholder (in the capacity as a stockholder) from calling a special meeting. These provisions

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might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations. Our amended and restated bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our amended and restated bylaws also specify certain requirements regarding the form and content of a stockholder s notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions may also 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 our company.

No Cumulative Voting. The DGCL provides that stockholders may cumulate votes in the election of directors if the corporation s certificate of incorporation allows for such mechanism. Our amended and restated certificate of incorporation does not provide for cumulative voting.

Directors Removed Only for Cause. Our amended and restated certificate of incorporation provides that stockholders may remove directors only for cause.

Exclusive Jurisdiction for Certain Actions. Our amended and restated bylaws require, to the fullest extent permitted by law, that derivative actions brought in our name, actions against our directors, officers and employees for breach of fiduciary duty and other similar actions be brought only in the Court of Chancery in the State of Delaware, unless we otherwise consent. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

Amendment of Charter Provisions. Any amendment of the above provisions in our amended and restated certificate of incorporation, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require approval by the affirmative vote of the holders of at least 66 2/3% of our then outstanding common stock.

Issuance of Undesignated Preferred Stock. Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of our company by means of a merger, tender offer, proxy contest or other means.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar s address is One Embarcadero Center, Suite 515, San Francisco, CA 94111.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol VKTX .

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SHARES ELIGIBLE FOR FUTURE SALE

Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Upon the completion of this offering, based on the number of shares of our capital stock outstanding as of September 30, 2015, we will have a total of shares of our common stock outstanding, assuming (1) 9,783,312 shares of common stock outstanding as of September 30, 2015, and (2) shares of our common stock issued in this offering. All of the shares sold in our initial public offering in May 2015, all of the shares of common stock to be sold in this offering, and any shares sold upon exercise of the underwriters option to purchase additional shares to cover over-allotments, will be freely tradable in the public market without restriction or further registration under the Securities Act of 1933, as amended, or the Securities Act, unless the shares are held by any of our affiliates as such term is defined in Rule 144 of the Securities Act, or Rule 144.

The remaining outstanding shares of our common stock will be deemed restricted securities as defined in Rule 144. Restricted securities may be sold in the public market only if they are registered or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which rules are summarized below. Subject to the lock-up agreements described below and the provisions of Rules 144 and 701 under the Securities Act, these shares will be available for sale in the public market as follows:

- no restricted securities will be available for sale in the public market upon the closing of this offering;
- beginning 90 days after the date of this prospectus, shares of common stock will become eligible for sale in the public market, of which shares will be held by affiliates and subject to vesting requirements and the volume and other restrictions of Rule 144, as described below;
- the shares issuable to Ligand Pharmaceuticals Incorporated, or Ligand, pursuant to the terms of the Secured Convertible Promissory Note that we previously issued to Ligand, or the Ligand Note, will be eligible for sale in the public market upon the earlier of (1) 270 days from the date of conversion of the Ligand Note, if converted, and (2) May 4, 2016;
- upon exercise, 51,500 shares subject to vested stock options that were outstanding as of September 30, 2015;
- upon vesting, 84,000 shares subject to restricted stock units that were outstanding as of September 30, 2015; and

the remainder of the shares of common stock will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144, as described below, and the availability of a resale registration statement.

Lock-Up Agreements

We expect that we, all of our executive officers and directors and the holders of substantially all of our outstanding common stock will enter into lock-up agreements, pursuant to which we and they will agree that, subject to certain exceptions, for a period of 90 days from the date of this prospectus, except with respect to the Ligand Note and the shares issuable to Ligand under the Ligand Note, we and they will not, without the prior

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written consent of , dispose of or hedge any shares or any securities convertible into or exchangeable for shares of our capital stock. may, in its discretion, and without our consent, but with advance notice to us, release any of the securities subject to these lock-up agreements at any time. Upon expiration of the lock-up period, we will be required to register the shares held by certain of our stockholders under the Securities Act. See the sections of this prospectus entitled Business Agreements with Ligand Registration Rights Agreement , Registration Rights and Description of Capital Stock Registration Rights .

Rule 144

In general, under Rule 144 as currently in effect, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person would be entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described above, within any three-month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares as of immediately after this offering, based on the number of shares to be sold in this offering as set forth on the cover page of this prospectus; or
- the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us. Rule 144 also provides that affiliates relying on Rule 144 to sell shares of our common stock that are not restricted shares must nonetheless comply with the same restrictions applicable to restricted shares, other than the holding period requirement.

Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144.

Registration Rights

Pursuant to the Registration Rights Agreement with Ligand, dated May 21, 2014, or the Registration Rights Agreement, we have agreed to register for resale the 3,655,964 shares of common stock issued by us to Ligand pursuant to the Master License Agreement. In addition, we have agreed that, if Ligand elects to convert the amounts outstanding under the Ligand Note into shares of our common stock following the consummation of this offering, we will also register the 663,090 shares of our common stock that would be issuable to Ligand pursuant to the Ligand Note, based on $2,652,361 of principal and interest outstanding under the Ligand Note as of

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September 30, 2015. Pursuant to the Registration Rights Agreement, we also agreed to register any additional shares that we may issue to Ligand pursuant to the Ligand Note. If the offer and sale of these shares is registered, the shares will be freely tradable without restriction under the Securities Act, except for shares purchased by affiliates, and a large number of shares may be sold into the public market. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock. See the sections of this prospectus entitled Business Agreements with Ligand Registration Rights Agreement and Description of Capital Stock Registration Rights for a description of these registration rights.

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MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

This section summarizes the material U.S. federal income tax consequences to a non-U.S. holder (as defined below) of the purchase, ownership and disposition of our common stock as of the date hereof. Except where noted, this section addresses only non-U.S. holders who purchase common stock pursuant to this offering and will hold such common stock as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended, or the Code.

For purposes of this section, a non-U.S. holder means a beneficial owner of our common stock (other than a partnership) that is not for U.S. federal income tax purposes any of the following:

An individual citizen or resident of the U.S.;

A corporation (or any other entity taxable as a corporation) created or organized in or under the laws of the U.S., any state thereof, or the District of Columbia;

An estate the income of which is subject to U.S. federal income taxation regardless of its source; or

A trust if it (i) is subject to the primary supervision of a court within the U.S. and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (ii) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

This section is based upon provisions of the Code, existing and proposed regulations, and administrative and judicial interpretations, all as currently in effect. These laws are subject to differing interpretations and may be changed, possibly on a retroactive basis, which may result in U.S. federal income tax consequences different from those summarized below. This section does not consider the specific facts and circumstances that may be relevant to a particular non-U.S. holder, nor does it address any estate or gift tax consequences, the Medicare tax on certain investment income, or the treatment of a non-U.S. holder under the laws of any state, local or non-U.S. taxing jurisdiction. In addition, it does not represent a detailed description of the U.S. federal income tax consequences applicable to you if you are subject to special treatment under the U.S. federal income tax laws (including if you are a U.S. expatriate or U.S. expatriated entity or subject to the U.S. anti-inversion rules, a bank or other financial institution, an insurance company, a tax-exempt entity, a broker, dealer, or trader in securities, commodities or currencies, a controlled foreign corporation, a passive foreign investment company, a partnership or other pass-through entity for U.S. federal income tax purposes, or a person who has acquired shares of our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment, or risk reduction transaction).

If a partnership (or any other entity treated as a partnership for U.S. federal income tax purposes) holds our common stock, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding the common stock should consult its tax advisor with regard to the U.S. federal income tax treatment of an investment in the common stock.

You should consult a tax advisor regarding the U.S. federal tax consequences of acquiring, holding and disposing of common stock in your particular circumstances, as well as any tax consequences that may arise

under the laws of any state, local or non-U.S. taxing jurisdiction.

Distributions on Common Stock

In general, if distributions are made with respect to our common stock, such distributions generally will constitute dividends to the extent of our current or accumulated earnings and profits as determined under U.S.

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federal income tax principles. Any portion of a distribution that exceeds our current and accumulated earnings and profits will first be applied against and reduce a holder s adjusted tax basis in the common stock, but not below zero, and to the extent such portion exceeds the holder s adjusted tax basis, will be treated as gain from the disposition of the common stock and will be treated as described under Gain on Disposition of Common Stock below.

Except as described below and subject to the discussions below on backup withholding and the Foreign Account Tax Compliance Act, or FATCA, if you are a non-U.S. holder of common stock, dividends paid to you are subject to withholding of U.S. federal income tax at a 30% rate or at such lower rate as may be specified by an applicable income tax treaty. A non-U.S. holder of our common stock who wishes to claim the benefit of an applicable treaty rate for dividends will be required (i) to complete Internal Revenue Service Form W-8BEN or W-8BEN-E (or other applicable form) and certify under penalties of perjury that such holder is not a U.S. person as defined under the Code and is eligible for treaty benefits, or (ii) if our common stock is held through certain foreign intermediaries, to satisfy the relevant certification requirements of applicable U.S. Treasury regulations. Special certification and other requirements apply to certain non-U.S. holders that are pass-through entities rather than corporations or individuals.

However, dividends that are effectively connected with the conduct of a trade or business by the non-U.S. holder within the U.S. (and, if required by an applicable income tax treaty, are attributable to a permanent establishment maintained by the non-U.S. holder in the U.S.) are not subject to the withholding tax, provided certain certification and disclosure requirements are satisfied. Instead, such dividends are subject to U.S. federal income tax on a net income basis at applicable graduated individual or corporate rates in generally the same manner as if the non-U.S. holder were a U.S. person as defined under the Code. Any such effectively connected dividends received by a non-U.S. corporation may be subject to an additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

If you are eligible for a reduced rate of U.S. withholding tax under a tax treaty, you may obtain a refund of any excess amounts withheld by filing an appropriate refund claim with the Internal Revenue Service.

Gain on Disposition of Common Stock

Subject to the discussions below on backup withholding and FATCA, any gain you realize on the sale or other disposition of shares of our common stock generally will not be subject to U.S. federal income tax unless:

- the gain is effectively connected with your conduct of a trade or business in the U.S. (and if required by an applicable income tax treaty, is attributable to a permanent establishment that you maintain in the U.S.);
- you are an individual who is present in the U.S. for 183 or more days in the taxable year of the sale and certain other conditions exist; or
- we are or have been a U.S. real property holding corporation for federal income tax purposes and you held, directly or indirectly, at any time during the five-year period ending on the date of disposition, more than 5% of the common stock and you are not eligible for any treaty exemption.

Gain described in the first bullet point immediately above will be subject to tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates. If you are a corporate non-U.S. holder, effectively connected gains that you recognize may also, under certain circumstances, be subject to an additional branch profits tax at a 30%

rate, or such lower rate as may be specified by an applicable income tax treaty. An individual non-U.S. holder described in the second bullet point immediately above will be subject to a flat 30% tax on the gain derived from the sale (or such lower rate as may be specified by an applicable income tax treaty), which may be offset by U.S. source capital losses, even though the individual is not considered a resident of the U.S.

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Although there can be no assurance in this regard, we believe that we have not been, are not currently, and do not anticipate becoming a U.S. real property holding corporation.

Additional Withholding Tax Relating to Foreign Accounts

Legislation commonly referred to as the Foreign Account Tax Compliance Act and associated guidance, or FATCA, will generally impose a 30% U.S. federal withholding tax on any withholdable payment (as defined below) paid to (i) a foreign financial institution (as specifically defined in the legislation), whether such foreign financial institution is the beneficial owner or an intermediary, unless such foreign financial institution agrees to verify, report and disclose its U.S. account holders (as specifically defined in the legislation) and meets certain other specified requirements, or (ii) a non-financial foreign entity, whether such non-financial foreign entity is the beneficial owner or an intermediary, unless such entity provides a certification that the beneficial owner of the payment does not have any substantial U.S. owners or provides the name, address and taxpayer identification number of each such substantial U.S. owner and certain other specified requirements are met. In certain cases, the relevant foreign financial institution or non-financial foreign entity may qualify for an exemption from, or be deemed to be in compliance with, these rules. Under final regulations and other current guidance, withholdable payments generally include dividends on our common stock and will include the gross proceeds of a disposition of our common stock on or after January 1, 2019. You should consult your own tax advisor regarding this legislation and whether it may be relevant to your ownership and disposition of our common stock.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the amount of distributions on our common stock paid to such holder and the amount of tax withheld, if any, with respect to those distributions, regardless of whether withholding was required. This information also may be made available under a specific treaty or agreement to the tax authorities in the country in which the non-U.S. holder resides or is established.

Backup withholding may apply to payments of distributions on our common stock made to a non-U.S. holder, and information reporting and backup withholding may apply to the payments of the proceeds of a sale of our common stock within the U.S. or through certain U.S.-related financial intermediaries, unless the non-U.S. holder furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we have or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person as defined under the Code.

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. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

The preceding discussion of material U.S. federal tax considerations is for general information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed changes in applicable laws or under the tax laws of an applicable income tax treaty.

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UNDERWRITING

Under the terms and subject to the conditions in an underwriting agreement dated as of the date of this prospectus, the underwriters named below, for whom is acting as representative, have severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name of Underwriter	Number of Shares of Common Stock
Total	

The underwriters are committed to purchase all the shares of common stock offered by us, other than those covered by the option to purchase additional shares described below, if they purchase any shares of common stock. The obligations of the underwriters may be terminated upon the occurrence of certain events specified in the underwriting agreement. Furthermore, pursuant to the underwriting agreement, the underwriters obligations are subject to customary conditions, representations and warranties contained in the underwriting agreement, including the absence of any material adverse change in our business or in the financial markets and the receipt of certain legal opinions, certificates and letters from us, our counsel and the independent auditors.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act of 1933, as amended, or the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares of common stock, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

We have granted the underwriters an over-allotment option. This option, which is exercisable for up to 45 days after the date of this prospectus, permits the underwriters to purchase a maximum of additional shares (15% of the shares of common stock sold in this offering) from us to cover over-allotments, if any. If the underwriters exercise all or part of this option, they will purchase shares of common stock covered by the option at the public offering price that appears on the cover page of this prospectus, less the underwriting discount. If this option is exercised in full, the total price to the public will be $ and the total net proceeds, before expenses, to us will be $.

Discounts and Commissions

The following table shows the public offering price, underwriting discounts and commissions and proceeds, before estimated offering expenses payable by us, to us. The information assumes either no exercise or full exercise by the underwriters of their over-allotment option.

	Per Share of Common Stock	Total Without Over-allotment Option	Total With Over-allotment Option
Public offering price	$	$	$
Underwriting discounts and commissions paid by us	$	$	$
Proceeds, before expenses, to us	$	$	$

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The estimated offering expenses payable by us, exclusive of underwriting discounts and commissions, are approximately $.

The underwriters propose to offer the shares of common stock offered by us to the public at the public offering price set forth on the cover of this prospectus. In addition, the underwriters may offer some of the shares to other securities dealers at such price less a concession of $ per share. If all of the shares of common stock offered by us are not sold at the public offering price, the underwriters may change the offering price and other selling terms by means of a supplement to this prospectus.

We have agreed to pay an expense deposit of $, or the Advance, to the representative, which will be applied against the out-of-pocket accountable expenses that will be paid by us to the representative in connection with this offering. The underwriting agreement, however, provides that in the event the offering is terminated, the representative shall return any portion of the Advance paid to it to the extent such expenses are not actually incurred in accordance with Rule 5110 of the Financial Industry Regulatory Authority, Inc., or FINRA.

We have also agreed to pay the underwriters expenses relating to the offering, including (1) all fees incurred in clearing this offering with FINRA; (2) the costs of all mailing and printing of the underwriting documents, registration statements, prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final prospectuses as the underwriters may reasonably deem necessary; (3) all fees and expenses and disbursements relating to the registration or qualification of the shares of common stock sold in the offering (including the over-allotment shares) under the blue sky securities laws of such states and other jurisdictions; (4) the fees and expenses of the underwriters legal counsel and (5) the underwriters actual accountable road show expenses for the offering. The maximum amount of fees, costs and expenses incurred by the underwriters (inclusive of legal fees, disbursements and costs) that we shall be responsible for may not exceed $.

We estimate that the total expenses of the offering payable by us, excluding the total underwriting discount and expense reimbursement, will be approximately $.

Discretionary Accounts

The underwriters do not intend to confirm sales of the securities offered hereby to any accounts over which they have discretionary authority.

Lock-Up Agreements

Pursuant to certain lock-up agreements, (1) our officers, directors and any other holders of 1% or more of our outstanding shares of common stock and all holders of securities exercisable for, exchangeable or convertible into shares of common stock as of the effective date of this registration statement, will agree, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any of our securities without the prior written consent of the representative, for a period of 90 days from the effective date of this registration statement, except upon the exercise of option outstanding as of the effective date of this registration statement and except for the grant of equity awards to our then-current service providers.

Right of First Refusal

We have agreed to grant the representative, for a period of up to either nine or 12 months from the closing of this offering, depending on certain circumstances, a right of first refusal to act as lead managing underwriter and book runner (or lead placement agent) with economics at least equal to those of the other book runner (or co-lead placement

agent) receiving the highest economics for any and all of our future registered offerings and private placements of equity, equity-linked and debt (excluding commercial bank debt) offerings during such period, including those of any of our successors or any of our subsidiaries. The representative will not have more than one opportunity to waive or terminate the right of first refusal in consideration of any payment or fee.

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Electronic Offer, Sale and Distribution of Shares

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The underwriters may agree to allocate a number of shares and warrants to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of, nor incorporated by reference into, this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Stabilization

In connection with this offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate-covering transactions, penalty bids and purchases to cover positions created by short sales.

Stabilizing transactions permit bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the shares while the offering is in progress.

Over-allotment transactions involve sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any short position by exercising their over-allotment option and/or purchasing shares in the open market.

Syndicate covering transactions involve purchases of shares in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the over-allotment option. If the underwriters sell more shares than could be covered by exercise of the over-allotment option and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the shares originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our shares of common stock or preventing or retarding a decline in the market price of our shares of common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. 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 our common stock. These transactions may be effected on the Nasdaq Capital Market and, if commenced, may be discontinued at any time.

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Other Relationships

Except as disclosed in this prospectus, we have no present arrangements with any of the underwriters for any further services.

Offer restrictions outside the United States

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Australia

This prospectus is not a disclosure document under Chapter 6D of the Australian Corporations Act, has not been lodged with the Australian Securities and Investments Commission and does not purport to include the information required of a disclosure document under Chapter 6D of the Australian Corporations Act. Accordingly, (1) the offer of the securities under this prospectus is only made to persons to whom it is lawful to offer the securities without disclosure under Chapter 6D of the Australian Corporations Act under one or more exemptions set out in section 708 of the Australian Corporations Act, (2) this prospectus is made available in Australia only to those persons as set forth in clause (1) above, and (3) the offeree must be sent a notice stating in substance that by accepting this offer, the offeree represents that the offeree is such a person as set forth in clause (1) above, and, unless permitted under the Australian Corporations Act, agrees not to sell or offer for sale within Australia any of the securities sold to the offeree within 12 months after its transfer to the offeree under this prospectus.

China

The information in this document does not constitute a public offer of the securities, whether by way of sale or subscription, in the People s Republic of China (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan). The securities may not be offered or sold directly or indirectly in the PRC to legal or natural persons other than directly to qualified domestic institutional investors.

European Economic Area Belgium, Germany, Luxembourg and Netherlands

The information in this document has been prepared on the basis that all offers of securities will be made pursuant to an exemption under the Directive 2003/71/EC, or the Prospectus Directive, as implemented in Member States of the European Economic Area (each, a Relevant Member State), from the requirement to produce a prospectus for offers of securities.

An offer to the public of securities has not been made, and may not be made, in a Relevant Member State except pursuant to one of the following exemptions under the Prospectus Directive as implemented in that Relevant Member State:

(1) to legal entities that are 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;

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(2) to any legal entity that has two or more of (a) an average of at least 250 employees during its last fiscal year; (b) a total balance sheet of more than 43,000,000 (as shown on its last annual unconsolidated or consolidated financial statements), and (c) an annual net turnover of more than 50,000,000 (as shown on its last annual unconsolidated or consolidated financial statements);

(3) to fewer than 100 natural or legal persons (other than qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive) subject to obtaining our prior consent or the prior consent of any underwriter for any such offer; or

(4) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall result in a requirement for the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

France

This document is not being distributed in the context of a public offering of financial securities (offre au public de titres financiers) in France within the meaning of Article L.411-1 of the French Monetary and Financial Code (Code monétaire et financier) and Articles 211-1 et seq. of the General Regulation of the French Autorité des marchés financiers, or the AMF. The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France.

This document and any other offering material relating to the securities have not been, and will not be, submitted to the AMF for approval in France and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in France.

Such offers, sales and distributions have been and shall only be made in France to (1) qualified investors (investisseurs qualifiés) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-1 to D.411-3, D. 744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation and/or (2) a restricted number of non-qualified investors (cercle restreint d investisseurs) acting for their own account, as defined in and in accordance with Articles L.411-2-II-2° and D.411-4, D.744-1, D.754-1 and D.764-1 of the French Monetary and Financial Code and any implementing regulation. Pursuant to Article 211-3 of the General Regulation of the AMF, investors in France are informed that the securities cannot be distributed (directly or indirectly) to the public by the investors otherwise than in accordance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 to L.621-8-3 of the French Monetary and Financial Code.

Ireland

The information in this document does not constitute a prospectus under any Irish laws or regulations and this document has not been filed with or approved by any Irish regulatory authority as the information has not been prepared in the context of a public offering of securities in Ireland within the meaning of the Irish Prospectus (Directive 2003/71/EC) Regulations 2005, or the Prospectus Regulations. The securities have not been offered or sold, and will not be offered, sold or delivered directly or indirectly in Ireland by way of a public offering, except to (1) qualified investors as defined in Regulation 2(l) of the Prospectus Regulations and (2) fewer than 100 natural or legal persons who are not qualified investors.

Israel

The securities offered by this prospectus have not been approved or disapproved by the Israeli Securities Authority (the ISA), or ISA, nor have such securities been registered for sale in Israel. The shares may not be offered or sold, directly or indirectly, to the public in Israel, absent the publication of a prospectus. The ISA has not issued permits, approvals or licenses in connection with the offering or publishing the prospectus; nor has it

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authenticated the details included herein, confirmed their reliability or completeness, or rendered an opinion as to the quality of the securities being offered. Any resale in Israel, directly or indirectly, to the public of the securities offered by this prospectus is subject to restrictions on transferability and must be effected only in compliance with the Israeli securities laws and regulations.

Italy

The offering of the securities in the Republic of Italy has not been authorized by the Italian Securities and Exchange Commission (Commissione Nazionale per le Società e la Borsa, CONSOB) pursuant to the Italian securities legislation and, accordingly, no offering material relating to the securities may be distributed in Italy and such securities may not be offered or sold in Italy in a public offer within the meaning of Article 1.1(t) of Legislative Decree No. 58 of 24 February 1998, or Decree No. 58, other than:

(1) to Italian qualified investors, as defined in Article 100 of Decree no. 58 by reference to Article 34-ter of CONSOB Regulation no. 11971 of 14 May 1999, or Regulation no. 1197l, as amended, or the Qualified Investors; and

(2) in other circumstances that are exempt from the rules on public offer pursuant to Article 100 of Decree No. 58 and Article 34-ter of Regulation No. 11971 as amended.

Any offer, sale or delivery of the securities or distribution of any offer document relating to the securities in Italy (excluding placements where a Qualified Investor solicits an offer from the issuer) under the paragraphs above must be:

(1) made by investment firms, banks or financial intermediaries permitted to conduct such activities in Italy in accordance with Legislative Decree No. 385 of 1 September 1993 (as amended), Decree No. 58, CONSOB Regulation No. 16190 of 29 October 2007 and any other applicable laws; and

(2) in compliance with all relevant Italian securities, tax and exchange controls and any other applicable laws.

Any subsequent distribution of the securities in Italy must be made in compliance with the public offer and prospectus requirement rules provided under Decree No. 58 and the Regulation No. 11971 as amended, unless an exception from those rules applies. Failure to comply with such rules may result in the sale of such securities being declared null and void and in the liability of the entity transferring the securities for any damages suffered by the investors.

Japan

The securities have not been and will not be registered under Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948), as amended, or the FIEL, pursuant to an exemption from the registration requirements applicable to a private placement of securities to Qualified Institutional Investors (as defined in and in accordance with Article 2, paragraph 3 of the FIEL and the regulations promulgated thereunder). Accordingly, the securities may not be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan other than Qualified Institutional Investors. Any Qualified Institutional Investor who acquires securities may not resell them to any person in Japan that is not a Qualified Institutional Investor, and acquisition by

any such person of securities is conditional upon the execution of an agreement to that effect.

Portugal

This document is not being distributed in the context of a public offer of financial securities (oferta pública de valores mobiliários) in Portugal, within the meaning of Article 109 of the Portuguese Securities Code (Código

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dos Valores Mobiliários). The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in Portugal. This document and any other offering material relating to the securities have not been, and will not be, submitted to the Portuguese Securities Market Commission (Comissão do Mercado de Valores Mobiliários) for approval in Portugal and, accordingly, may not be distributed or caused to distributed, directly or indirectly, to the public in Portugal, other than under circumstances that are deemed not to qualify as a public offer under the Portuguese Securities Code. Such offers, sales and distributions of securities in Portugal are limited to persons who are qualified investors (as defined in the Portuguese Securities Code). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Sweden

This document has not been, and will not be, registered with or approved by Finansinspektionen (the Swedish Financial Supervisory Authority). Accordingly, this document may not be made available, nor may the securities be offered for sale in Sweden, other than under circumstances that are deemed not to require a prospectus under the Swedish Financial Instruments Trading Act (1991:980) (Sw. lag (1991:980) om handel med finansiella instrument). Any offering of securities in Sweden is limited to persons who are qualified investors (as defined in the Financial Instruments Trading Act). Only such investors may receive this document and they may not distribute it or the information contained in it to any other person.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document 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. Neither this document nor any other offering material relating to the securities may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering material relating to the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority (FINMA). This document is personal to the recipient only and not for general circulation in Switzerland.

United Arab Emirates

Neither this document nor the securities have been approved, disapproved or passed on in any way by the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates, nor have we received authorization or licensing from the Central Bank of the United Arab Emirates or any other governmental authority in the United Arab Emirates to market or sell the securities within the United Arab Emirates. This document does not constitute and may not be used for the purpose of an offer or invitation. No services relating to the securities, including the receipt of applications and/or the allotment or redemption of such shares, may be rendered within the United Arab Emirates by us. No offer or invitation to subscribe for securities is valid or permitted in the Dubai International Financial Centre.

United Kingdom

Neither the information in this document nor any other document relating to the offer has been delivered for approval to the Financial Services Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the Financial Services and Markets Act 2000, as amended, or the FSMA) has been published or is intended to be published in respect of the securities. This document is issued on a confidential basis to qualified

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investors (within the meaning of section 86(7) of FSMA) in the United Kingdom, and the securities may not be offered or sold in the United Kingdom by means of this document, any accompanying letter or any other document, except in circumstances which do not require the publication of a prospectus pursuant to section 86(1) FSMA. This document should not be distributed, published or reproduced, in whole or in part, nor may its contents be disclosed by recipients to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) received in connection with the issue or sale of the securities has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of FSMA does not apply to us.

In the United Kingdom, this document is being distributed only to, and is directed at, persons (1) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the Financial Services and Markets Act 2000 (Financial Promotions) Order 2005, or the FPO, (2) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO, or (3) to whom it may otherwise be lawfully communicated (together, relevant persons). The investments to which this document relates are available only to, and any invitation, offer or agreement to purchase will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

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LEGAL MATTERS

Paul Hastings LLP, Palo Alto, California, which has acted as our counsel in connection with this offering, will pass upon the validity of the shares of common stock being offered by this prospectus. The underwriters have been represented by , .

CHANGES IN AND DISAGREEMENTS WITH INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON ACCOUNTING AND FINANCIAL

DISCLOSURE

On March 4, 2014, we engaged MaloneBailey LLP, or MaloneBailey, to audit our financial statements as of and for the fiscal years ended December 31, 2012 and 2013. On April 7, 2014, our board of directors approved the dismissal of MaloneBailey as our independent registered public accounting firm, effective immediately.

MaloneBailey did not issue any reports with respect to our financial statements. Accordingly, there were no reports issued by MaloneBailey with respect to us that contained an adverse opinion or disclaimer of opinion and MaloneBailey did not issue any report that was qualified or modified as to uncertainty, audit scope or accounting principles.

From September 24, 2012 (Inception) through April 7, 2014: (1) there were no disagreements between us and MaloneBailey on any matters of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which, if not resolved to the satisfaction of MaloneBailey, would have caused MaloneBailey to make reference to the matter in any report they would have issued; and (2) there were no reportable events as that term is described in Item 304(a)(1)(v) of Regulation S-K.

We provided MaloneBailey with a copy of the foregoing disclosures and requested that MaloneBailey provide a letter addressed to the SEC stating whether it agrees with the foregoing statements. MaloneBailey furnished such a letter, dated July 1, 2014, and a copy of such letter is filed as Exhibit 16.1 to the registration statement of which this prospectus forms a part.

Effective as of April 7, 2014, our board of directors appointed Marcum LLP, or Marcum, as our independent registered public accounting firm to audit our financial statements as of and for the fiscal years ended December 31, 2012, 2013 and 2014. From September 24, 2012 (Inception) through April 7, 2014, neither we nor anyone on our behalf consulted with Marcum regarding (1) the application of accounting principles to a specified transaction, either completed or proposed, (2) the type of audit opinion that might be rendered on our financial statements, or (3) any matter that was either the subject of a disagreement, as described in Item 304(a)(1)(iv) of Regulation S-K and the related instructions thereto, or a reportable event as described in Item 304(a)(1)(v) of Regulation S-K.

EXPERTS

The audited financial statements as of December 31, 2014 and 2013 and for the years then ended have been included herein in reliance upon the report of Marcum LLP (which contains an explanatory paragraph describing conditions that raise substantial doubt about our ability to continue as a going concern as described in Note 1 to our financial statements included elsewhere in this prospectus, which constitute a part of the registration statement), an independent registered public accounting firm, and upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission, or the SEC, a registration statement on Form S-1 under the Securities Act of 1933, as amended, with respect to the shares of common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the

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information set forth in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our securities, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. You may obtain copies of this information by mail from the Public Reference Section of the SEC, 100 F Street, N.E., Room 1580, Washington, D.C. 20549, at prescribed rates. You may obtain information on the operation of the public reference rooms by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is *www.sec.gov*.

We are subject to the information and reporting requirements of the Securities Exchange Act of 1934, as amended, and, in accordance with this law, file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the SEC s public reference facilities and the website of the SEC referred to above. We also maintain a website at *www.vikingtherapeutics.com*. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

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VIKING THERAPEUTICS, INC.

INDEX TO FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders

of Viking Therapeutics, Inc.

We have audited the accompanying balance sheets of Viking Therapeutics, Inc. (the Company) as of December 31, 2014 and 2013, and the related statements of operations, stockholders deficit and cash flows for the years then ended. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Viking Therapeutics, Inc., as of December 31, 2014 and 2013, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has had recurring net losses and has a working capital deficiency that raise substantial doubt about the Company s ability to continue as a going concern. Management s plans regarding these matters also are described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ Marcum LLP

Irvine, California

February 27, 2015

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Viking Therapeutics, Inc.

Balance Sheets

	December 31, 2013	December 31, 2014	September 30, 2015 (Unaudited)
Assets			
Current assets:			
Cash and cash equivalents	$ 179,619	$ 755,857	$ 2,140,115
Short-term investments available for sale			15,349,507
Prepaid expenses and other current assets		17,827	1,442,629
Total current assets	179,619	773,684	18,932,251
Deferred IPO financing costs		2,268,675	
Other assets	775	775	80,000
Total assets	$ 180,394	$ 3,043,134	$ 19,012,251
Liabilities, convertible notes and stockholders equity (deficit)			
Current liabilities:			
Accounts payable	$ 73,379	$ 1,830,724	$ 401,672
Accounts payable related party	712		
Accrued license fees		19,865,863	
Other accrued liabilities		380,257	1,103,432
Accrued interest	6,507	77,222	152,361
Convertible notes payable, current portion (net of discount of $3,106, $6,076 and $588,976 at December 31, 2013, December 31, 2014 and September 30, 2015, respectively)	46,894	304,274	1,911,024
Debt conversion feature liability		58,742	2,154,062
Total current liabilities	127,492	22,517,082	5,722,551
Convertible notes payable (net of discount of $28,499, $1,235,886 and $0 at December 31, 2013, December 31, 2014 and September 30, 2015, respectively)	231,851	1,264,114	
Debt conversion feature liability	71,655	1,390,469	
Deferred rent			19,149
Total long-term liabilities	303,506	2,654,583	19,149
Total liabilities	430,998	25,171,665	5,741,700
Commitments and Contingencies (See note 9)			
Stockholders equity (deficit):			

Common stock, $0.00001 par value: 10,000,000, 25,000,000 and 300,000,000 shares authorized at December 31, 2013, December 31, 2014 and September 30, 2015, respectively; 5,200,000, 6,000,000 and 9,783,312 shares issued and outstanding at December 31, 2013, December 31, 2014 and September 30, 2015, respectively	52	60	98
Additional paid-in capital	11,114	12,866	53,729,783
Notes receivable from stockholders	(4,496)		
Accumulated other comprehensive loss			(4,848)
Accumulated deficit	(257,274)	(22,141,457)	(40,454,482)
Total stockholders equity (deficit)	(250,604)	(22,128,531)	13,270,551
Total liabilities and stockholders equity (deficit)	$ 180,394	$ 3,043,134	$ 19,012,251

See accompanying notes to financial statements.

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Viking Therapeutics, Inc.

Statements of Operations

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014	2015
			(Unaudited)	(Unaudited)
Revenues	$	$	$	$
Operating expenses:				
Research and development	11,613	22,223,073	22,080,286	3,747,428
General and administrative	89,463	1,244,910	1,034,132	3,628,747
Total operating expenses	101,076	23,467,983	23,114,418	7,376,175
Loss from operations	(101,076)	(23,467,983)	(23,114,418)	(7,376,175)
Other income (expense):				
Change in fair value of accrued license fees		1,821,713	(264,112)	(9,381,848)
Change in fair value of debt conversion feature liability	(20,622)	390,763	405,782	(826,637)
Amortization of debt discount	(18,392)	(557,961)	(263,651)	(652,986)
Interest expense, net	(6,157)	(70,715)	(37,131)	(75,379)
Total other income (expense)	(45,171)	1,583,800	(159,112)	(10,936,850)
Net loss	(146,247)	(21,884,183)	(23,273,530)	(18,313,025)
Other comprehensive loss, net of tax:				
Unrealized loss on securities				(4,848)
Comprehensive loss	$ (146,247)	$ (21,884,183)	$ (23,273,530)	$ (18,317,873)
Basic and diluted net loss per share	$ (0.07)	$ (5.23)	$ (5.84)	$ (2.69)
Weighted-average shares used to compute basic and diluted net loss per share	2,043,295	4,187,415	3,982,147	6,802,169

See accompanying notes to financial statements.

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Viking Therapeutics, Inc.

Statements of Stockholders Equity (Deficit)

	Common Stock		Additional Paid-In Capital	Notes Receivable from Stockholders	Unrealized Gain (Loss) on Investments	Accumulated Deficit	Total
	Shares	Amount					
Balance December 31, 2012	**5,000,000**	**$ 50**	**$ 5,562**	**$**	**$**	**$ (111,027)**	**$ (105,415)**
Repurchase of common stock	(500,000)	(5)	(4,995)	2,497			(2,503)
Issuance of common stock for notes receivable	700,000	7	6,993	(6,993)			7
Employee stock-based compensation			3,554				3,554
Net loss						(146,247)	(146,247)
Balance December 31, 2013	**5,200,000**	**52**	**11,114**	**(4,496)**		**(257,274)**	**(250,604)**
Repurchase of common stock	(200,000)	(2)	(1,998)	1,998			(2)
Issuance of performance based common stock	1,000,000	10	(10)				
Employee stock-based compensation			3,760				3,760
Forgiveness of note receivable in consideration of services rendered				2,498			2,498
Net loss						(21,884,183)	(21,884,183)
Balance December 31, 2014	**6,000,000**	**60**	**12,866**			**(22,141,457)**	**(22,128,531)**
Repurchase of common stock	(3,802,859)	(38)					(38)
Employee stock-based compensation	56,997	4	2,074,004				2,074,008
Value of shares withheld related to			(418,412)				(418,412)

employee tax withholding							
Conversion of debt to equity	57,046	1	456,411				456,412
Issuances of common stock	3,661,128	36	29,278,583				29,278,619
Issuance of restricted stock to employees	361,000						
Initial public offering, net of issuance costs	3,450,000	35	22,326,331				22,326,366
Unrealized gain (loss) on investments					(4,848)		(4,848)
Net loss						(18,313,025)	(18,313,025)
Balance September 30, 2015 (Unaudited)	**9,783,312**	**$ 98**	**$ 53,729,783**	**$**	**$ (4,848)**	**$ (40,454,482)**	**$ 13,270,551**

See accompanying notes to financial statements.

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Viking Therapeutics, Inc.

Statements of Cash Flows

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014 (Unaudited)	2015 (Unaudited)
Cash flows from operating activities				
Net loss	$ (146,247)	$ (21,884,183)	$ (23,273,530)	$ (18,313,025)
Adjustments to reconcile net loss to net cash used in operating activities				
Amortization of discount charged to interest expense on convertible notes payable	18,392	557,961	263,651	652,986
Amortization of investment premiums				67,692
Change in fair value of accrued license fees		(1,821,713)	264,112	9,381,848
Change in fair value of debt conversion feature liability	20,622	(390,763)	(405,782)	826,637
Stock-based compensation	3,554	6,258	5,355	2,074,004
Changes in operating assets and liabilities:				
Prepaid expenses and other current assets		(17,827)	(16,781)	(1,504,027)
Deposits	(775)			
Accounts payable	24,366	191,008	84,727	137,286
Accounts payable - related party	(4,304)	(712)		
Accrued license fees		21,687,576	21,687,576	
Accrued expenses	6,157	80,972	240,215	1,244,495
Net cash used in operating activities	(78,235)	(1,591,423)	(1,150,457)	(5,432,104)
Cash flows from investing activities				
Purchases of investments				(16,033,042)
Proceeds from sales and maturities of investments				607,000
Net cash used in investing activities				(15,426,042)
Cash flows from financing activities				
Net proceeds from issuances of common stock	7			25,392,500
Public offering costs		(332,337)	(234,745)	(2,733,798)
Value of shares withheld related to employee tax withholding				(418,412)
Repurchase of common stock	(2,503)	(2)	(2)	(38)
Proceeds from convertible notes payable	260,350	2,500,000	2,000,000	
Proceeds from stock issuance under employee stock purchase plan				2,152

Net cash provided by financing activities	257,854	2,167,661	1,765,253	22,242,404
Net increase in cash and cash equivalents	179,619	576,238	614,796	1,384,258
Cash, and cash equivalents beginning of period		179,619	179,619	755,857
Cash, and cash equivalents end of period	$ 179,619	$ 755,857	$ 794,415	$ 2,140,115
Supplemental disclosure of non-cash investing and financing transactions				
Shares issued in lieu of license fee	$	$	$	$ 29,247,711
Unpaid deferred IPO costs	$	$ 1,936,338	$ 1,895,950	$
Conversion of notes payable	$	$	$	$ 456,412
Issuance of common stock to consultant	$	$	$	$ 28,760
Issuance of common stock in exchange for notes receivable	$ 4,496	$	$	$
Repurchase of common stock	$	$ (1,998)	$	$

See accompanying notes to financial statements.

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Viking Therapeutics, Inc.

Notes to Financial Statements

1. Organization, Liquidity and Management s Plan, and Summary of Significant Accounting Policies

The Company

Viking Therapeutics, Inc., a Delaware corporation (the Company), is a clinical-stage biopharmaceutical company focused on the development of novel, first-in-class or best-in-class therapies for metabolic and endocrine disorders.

The Company was incorporated under the laws of the State of Delaware on September 24, 2012 and its principal executive offices are located in San Diego, CA.

Basis of Presentation

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The accompanying balance sheet as of September 30, 2015, statements of operations for the three and nine months ended September 30, 2015 and 2014 and statements of cash flows for the nine months ended September 30, 2015 and 2014 are unaudited. These unaudited financial statements have been prepared in accordance with the rules and regulations of the United States Securities and Exchange Commission (SEC) for interim financial information. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments (consisting of normal recurring adjustments) necessary to state fairly the Company s financial position as of September 30, 2015 and the results of operations for the three and nine months ended September 30, 2015 and 2014 and cash flows for the nine months ended September 30, 2015 and 2014. Interim results are not necessarily indicative of results for an entire year.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the accompanying financial statements. Significant estimates made in preparing these financial statements relate to determining the fair value of the debt conversion liability and accounting for certain commitments. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with maturities of three months or less from the date of purchase to be cash equivalents.

Investments Available-for-Sale

Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported in accumulated other comprehensive income (loss). The amortized cost of debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. The amortization of premiums and accretion of discounts is included in interest income. Realized gains and losses and declines in value judged to be other-than-temporary, if any, on

available-for-sale securities are included in other income (expense). The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income.

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Concentration of Credit Risk

Financial instruments, which potentially subject the Company to concentration of credit risk, consist primarily of cash and cash equivalents and marketable securities. The Company maintains deposits in federally insured depository institutions in excess of federally insured limits. Management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. Additionally, the Company has established guidelines regarding approved investments and maturities of investments, which are designed to maintain safety and liquidity.

Liquidity and Management s Plan

In May 2015, the Company completed an initial public offering (IPO), issuing 3,450,000 shares of its common stock and raising $25,392,500 in net proceeds, including the full exercise of the over-allotment option, and after deducting underwriting discounts, commissions and a non-accountable expense in an aggregate amount of $2,207,500, but before deducting other offering costs and expenses. These additional funds raised in May 2015 alleviate any doubt in regards to the Company s ability to continue as a going concern as the Company believes it has sufficient funds to meet its projected operating requirements for at least the next 12 months. (See Note 7 regarding proceeds from the Company s initial public offering received in May 2015.)

Deferred Financing Costs

Deferred financing costs represent legal, accounting and other direct costs related to the Company s efforts to raise capital through a public sale of the Company s common stock. Costs related to this offering will be deferred until its completion, at which time they will be reclassified to additional paid-in-capital as a reduction of the proceeds.

Revenue Recognition

The Company has not recorded any revenues since its inception. However, in the future the Company may enter into collaborative research and licensing agreements, under which the Company could be eligible for payments made in the form of upfront license fees, research funding, cost reimbursement, contingent event-based payments and royalties.

Revenue from upfront, nonrefundable license fees is recognized over the period that any related services are to be provided by the Company. Amounts received for research funding are recognized as revenue as the research services that are the subject of such funding are performed. Revenue derived from reimbursement of research and development costs in transactions where the Company acts as a principal are recorded as revenue for the gross amount of the reimbursement, and the costs associated with these reimbursements are reflected as a component of research and development expense in the statements of operations.

Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 605-28, *Revenue Recognition Milestone Method* (ASC 605-28), established the milestone method as an acceptable method of revenue recognition for certain contingent event-based payments under research and development arrangements. Under the milestone method, a payment that is contingent upon the achievement of a substantive milestone is recognized in its entirety in the period in which the milestone is achieved. A milestone is an event (1) that can be achieved based in whole or in part on either the Company s performance or on the occurrence of a specific outcome resulting from the Company s performance, (2) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved, and (3) that would result in additional payments being due to the Company. The determination that a milestone is substantive is judgmental and is made at the inception of the arrangement.

Milestones are considered substantive when the consideration earned from the achievement of the milestone is (a) commensurate with either the Company s performance to achieve the milestone or the enhancement of value of the item delivered as a result of a specific outcome resulting from the

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Company s performance to achieve the milestone, (b) relates solely to past performance, and (c) is reasonable relative to all deliverables and payment terms in the arrangement.

Other contingent event-based payments received for which payment is either contingent solely upon the passage of time or the results of a collaborative partner s performance are not considered milestones under ASC 605-28. In accordance with ASC Topic 605-25, *Revenue Recognition Multiple-Element Arrangements* (ASC 605-25), such payments will be recognized as revenue when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, price is fixed or determinable and collectability is reasonably assured. Revenues recognized for royalty payments, if any, are based upon actual net sales of the licensed compounds, as provided by the collaboration arrangement, in the period the sales occur. Any amounts received prior to satisfying the Company s revenue recognition criteria are recorded as deferred revenue on its balance sheets.

Research and Development Expenses

All costs of research and development are expensed in the period incurred. Research and development costs primarily consist of fees paid to clinical research organizations (CROs) and clinical trial sites, employee and consultant related expenses, which include salaries, benefits and stock-based compensation for research and development personnel, external research and development expenses incurred pursuant to agreements with third-party manufacturing organizations, facilities costs, travel costs, dues and subscriptions, depreciation and materials used in preclinical studies, clinical trials and research and development.

The Company estimates its preclinical study and clinical trial expenses based on the services it received pursuant to contracts with research institutions and CROs that conduct and manage preclinical studies and clinical trials on the Company s behalf. Clinical trial-related contracts vary significantly in length, and may be for a fixed amount, based on milestones or deliverables, a variable amount based on actual costs incurred, capped at a certain limit, or for a combination of these elements. The Company accrues service fees based on work performed, which relies on estimates of total costs incurred based on milestones achieved, patient enrollment and other events. The majority of the Company s service providers invoice the Company in arrears, and to the extent that amounts invoiced differ from its estimates of expenses incurred, the Company accrues for additional costs. The financial terms of these agreements vary from contract to contract and may result in uneven expenses and payment flows. Preclinical study and clinical trial expenses include:

- fees paid to CROs, consultants and laboratories in connection with preclinical studies;
- fees paid to CROs, clinical trial sites, investigators and consultants in connection with clinical trials; and
- fees paid to contract manufacturers and service providers in connection with the production, testing and packaging of active pharmaceutical ingredients and drug materials for preclinical studies and clinical trials.

Payments under some of these agreements depend on factors such as the milestones accomplished, including enrollment of certain numbers of patients, site initiation and the completion of clinical trial milestones. To date, the Company has not experienced any events requiring it to make material adjustments to its accruals for service fees. If the Company does not identify costs that it has begun to incur or if it underestimates or overestimates the level of

services performed or the costs of these services, its actual expenses could differ from its estimates which could materially affect its results of operations. Adjustments to the Company s accruals are recorded as changes in estimates become evident. Furthermore, based on amounts invoiced to the Company by its service providers, the Company may also record payments made to those providers as prepaid expenses that will be recognized as expense in future periods as services are rendered.

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The Company s historical research and development expenses primarily related to obtaining the option to license compounds and related intellectual property rights from Ligand Pharmaceuticals Incorporated (Ligand). In May 2014, the Company entered into a master license agreement with Ligand, as amended (the Master License Agreement), pursuant to which it acquired certain rights to a number of research and development programs from Ligand. In doing so, the Company updated its policy on research and development to include the purchase of rights to intangible assets. In accordance with ASC Topic 730, *Research and Development,* intangible assets that are acquired and have an alternative future use, as defined, should be capitalized and reported as an intangible asset; however, the cost of acquired intangible assets that do not have alternative future uses should be reported as research and development expense as incurred. The Company notes that intangible assets acquired that are in the preclinical or clinical stages of development when acquired, and not approved by the U.S. Food and Drug Administration, are deemed to have not satisfied the definition of having an alternative future use, as defined. Accordingly, assets acquired in the preclinical and clinical stages of development were expensed as incurred in the Company s statement of operations.

Patent Costs

Costs related to filing and pursuing patent applications are expensed as incurred, as recoverability of such expenditures is uncertain.

Stock-Based Compensation

The Company generally uses the straight-line or graded vesting method to allocate compensation cost to reporting periods over each optionee s requisite service period, which is generally the vesting period, and estimates the fair value of stock-based awards or restricted stock units to employees and directors using the Black-Scholes option-valuation model. For options with a graded vesting schedule, the Company uses the graded vesting schedule to allocate compensation cost to reporting periods. The Black-Scholes model requires the input of subjective assumptions, including volatility, the expected term and the fair value of the underlying common stock on the date of grant, among other inputs. Stock options granted to non-employees are accounted for using the fair value approach. Stock options granted to non-employees are subject to periodic revaluation over their vesting terms. For restricted stock and restricted stock unit awards, the Company generally uses the straight-line or graded vesting method to allocate compensation cost to reporting periods over the holder s requisite service period, which is generally the vesting period, and uses the fair value at grant date to value the awards. For restricted stock that vests upon the satisfaction of certain performance conditions, the Company recognizes stock-based compensation expense when it becomes probable that the performance conditions will be met. At the point that it becomes probable that the performance conditions will be met, the Company will record a cumulative catchup of the expense from the grant date to the current date, and the Company will then amortize the remainder of the expense over the remaining service period.

Prior to the IPO, the Company accounted for stock-based compensation by measuring and recognizing compensation expense for all stock-based payments made to employees and directors based on estimated award date fair values, which estimates were highly complex and subjective in nature. The Company used the straight-line or graded vesting method to allocate compensation cost to reporting periods over each restricted award s requisite service period, which was generally the vesting period, and estimated the fair value of restricted stock-based awards to employees and consultants using a Monte Carlo market approach simulation method and performed an allocation of value to common stock based on the estimated time to a liquidity event. In addition, the Company accounted for performance-based restricted stock awards to employees by determining the fair value of the restricted stock award at the date of issuance by using the Probability Weighted Expected Return Method (PWERM) and then assessing at each balance sheet date the probability of the performance criteria being met. If the probability of achieving the criteria was deemed less-than-probable, then no expense was recorded. At the point where the criteria were deemed probable of being met, then the Company began recording stock-based compensation with a cumulative catch-up expense in the period first

recognized and then on a straight-line basis over the remaining period for which the performance criteria were expected to be completed.

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Income Taxes

The Company accounts for its income taxes using the liability method whereby deferred tax assets and liabilities are determined based on temporary differences between the basis used for financial reporting and income tax reporting purposes. Deferred income taxes are provided based on the enacted tax rates in effect at the time such temporary differences are expected to reverse. A valuation allowance is provided for deferred tax assets if it is more likely than not that the Company will not realize those tax assets through future operations.

Income tax positions must meet a more-likely-than-not recognition threshold to be recognized. Income tax positions that previously failed to meet the more-likely-than-not threshold are recognized in the first subsequent financial reporting period in which that threshold is met. Previously recognized tax positions that no longer meet the more-likely-than-not threshold are derecognized in the first subsequent financial reporting period in which that threshold is no longer met.

Net Loss per Common Share

Basic net loss per share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method. For purposes of this calculation, the Company currently does not have any deemed common share equivalents; therefore, its basic and diluted net loss per share calculations are the same.

The following table presents the computation of basic and diluted net loss per common share:

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014 (Unaudited)	2015 (Unaudited)
Historical net loss per share				
Numerator				
Net loss attributable to common stockholders	$ (146,247)	$ (21,884,183)	$ (23,273,530)	$ (18,313,025)
Denominator				
Weighted-average common shares outstanding	5,020,685	5,860,274	5,813,187	8,120,639
Less: Weighted-average shares subject to repurchase	(2,977,390)	(1,672,859)	(1,831,040)	(1,318,470)
Denominator for basic and diluted net loss per share	2,043,295	4,187,415	3,982,147	6,802,169
Basic and diluted net loss per share	$ (0.07)	$ (5.23)	$ (5.84)	$ (2.69)

Potentially dilutive securities that are not included in the calculation of diluted net loss per share because their effect is anti-dilutive are as follows (in common equivalent shares):

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014 (Unaudited)	2015 (Unaudited)
Common stock warrants				82,500
Restricted stock units				84,000
Common stock subject to repurchase	2,389,585	2,018,754	2,295,833	772,963
Common stock options				410,144
Shares issued upon conversion of debt				663,090
	2,389,585	2,018,754	2,295,833	2,012,697

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Segments

The Company operates in only one segment. Management uses cash flows as the primary measure to manage its business and does not segment its business for internal reporting or decision making.

Recent Accounting Pronouncements

In June 2014, the FASB issued ASU No. 2014-10, *Development Stage Entities* (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation. The amendments in this ASU remove the definition of a development stage entity from the Master Glossary of the Accounting Standards Codification, thereby removing the financial reporting distinction between development stage entities and other reporting entities from accounting principles generally accepted in the United States of America. In addition, the amendments eliminate the requirements for development stage entities to: (1) present inception-to-date information in the statements of income, cash flows, and shareholder equity; (2) label the financial statements as those of a development stage entity; (3) disclose a description of the development stage activities in which the entity is engaged; and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. The presentation and disclosure requirements in Topic 915 will no longer be required for the first annual period beginning after December 15, 2014. The revised consolidation standards are effective one year later, in annual periods beginning after December 15, 2015. Early adoption is permitted. The Company has historically been reporting as a development stage entity, however it has elected early adoption of this new standard as a part of the issuance of its financial statements for the year ended December 31, 2014 The adoption of this standard did not have a material impact on the Company s financial position or results of operations.

In August 2014, the FASB issued ASU No. 2014-15, *Disclosure of Uncertainties about an Entity s Ability to Continue as a Going Concern* (ASU 2014-15). ASU 2014-15 provides guidance on presentation of management s plans, when conditions or events, considered in the aggregate, raise substantial doubt about the entity s ability to continue as a going concern within one year after the date that the financial statements are issued. This guidance is intended to mitigate those conditions or events that will alleviate substantial doubt about the entity s ability to continue as a going concern. ASU 2014-15 is effective for fiscal years ending after December 15, 2016. The adoption of ASU 2014-15 is not expected to have a material impact on the Company s financial statements.

2. Investments in Marketable Securities

The Company s investment strategy is focused on capital preservation. The Company invests in instruments that meet the credit quality standards outlined in the Company s investment policy. This policy also limits the amount of credit exposure to any one issue or type of instrument. The Company did not have any investments classified as available-for-sale as of December 31, 2013 or 2014. As of September 30, 2015, the Company s investments were in money market funds, certificates of deposit and corporate debt securities. There were no sales of available-for-sale securities during the nine months ended September 30, 2015.

Investments classified as available-for-sale as of September 30, 2015 consisted of the following (unaudited):

	Amortized Cost	Gross Unrealized	Gross Unrealized	Aggregate Estimated

		Gains [1]	Losses [1]	Fair Value
Money market funds (2)	1,269,047			1,269,047
Certificates of deposit (3)	7,089,727			7,089,727
Corporate debt securities (4)	8,264,628	975	(5,823)	8,259,780
	$ 16,623,402	$ 975	$ (5,823)	$ 16,618,554

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(1) Unrealized gains and losses on available-for-sale securities are included as a component of comprehensive loss. At September 30, 2015, there were 12 securities in an unrealized loss position. These unrealized losses were less than $2,000 individually and $6,000 in the aggregate. These securities have not been in a continuous unrealized loss position for more than 12 months. The Company does not intend to sell these investments and it is not more likely than not that the Company will be required to sell these investments before recovery of their amortized cost basis which may be at maturity. The Company reviews its investments to identify and evaluate investments that have an indication of possible other-than-temporary impairment. Factors considered in determining whether a loss is other-than-temporary include the length of time and extent to which fair value has been less than the cost basis, the financial condition and near-term prospects of the investee, and the Company s intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value.

(2) All money market funds are classified as cash equivalents.

(3) At September 30, 2015, none of these securities were classified as cash and cash equivalents on the Company s balance sheet and $249,348 of these securities were scheduled to mature outside one year.

(4) At September 30, 2015, none of these securities were classified as cash and cash equivalents on the Company s balance sheet and $0 of these securities were scheduled to mature outside one year.

3. Fair Value of Financial Instruments

The Company s financial instruments consist of cash and cash equivalents, investments, accounts payable, accrued license fees, debt and its related debt conversion feature liability. The carrying amounts reported in the accompanying balance sheets for cash and cash equivalents and accounts payable approximate fair value because of the short-term maturity of those instruments. Fair value measurements are classified and disclosed in one of the following three categories:

Level 1 Quoted prices in active markets for identical assets or liabilities.

Level 2 Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company did not have any assets or liabilities categorized as Level 1 or Level 2 in the fair value hierarchy as of December 31, 2013 or December 31, 2014. As of September 30, 2015, all of the Company s financial assets that were subject to fair value measurements were valued using observable inputs. The Company s financial assets valued based on Level 1 inputs consist of money market funds and certificates of deposit. The Company s financial assets valued based on Level 2 inputs consist of corporate debt securities, which consist of investments in highly-rated investment-grade corporations.

The Company s financial liabilities that were subject to fair value measurements consist of accrued license fees and debt conversion features that have been recorded as liabilities based on Level 3 unobservable inputs. The Company s

accrued license fees have been recorded based on Level 3 fair value inputs, which consist of unobservable inputs and generally reflect management s estimate of assumptions that market participants would use in pricing the assets. The fair value of the debt conversion feature liabilities at December 31, 2013 and the debt conversion feature liability, current at December 31, 2014 required management to make assumptions about

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the occurrence of a Qualifying Financing resulting in net proceeds of at least $5,000,000 and the Notes being converted based on the applicable conversion terms.

The fair value of the debt conversion feature, long-term at December 31, 2014 required management to make assumptions about the probability of the occurrence of the earlier of a Qualified Private Financing or the Company s initial public offering, and the related convertible notes being converted based on the applicable conversion terms. The fair value of the debt conversion feature current liability as of September 30, 2015 required management to make a fair value estimate based on assumed timing of conversion and an assumed annual discount rate. Alternate probabilities would have resulted in increases or decreases in the fair value of the debt conversion feature liabilities.

The fair values of the Company s financial instruments are presented below:

	Fair Value Measurements at December 31, 2013			
	Total	Level 1	Level 2	Level 3
Financial liabilities carried at fair value:				
Debt conversion feature long-term	71,655			71,655
Total financial liabilities	$ 71,655	$	$	$ 71,655

	Fair Value Measurements at December 31, 2014			
	Total	Level 1	Level 2	Level 3
Financial liabilities carried at fair value:				
Accrued license fees	$ 19,865,863	$	$	$ 19,865,863
Debt conversion feature current	58,742			58,742
Debt conversion feature long-term	1,390,469			1,390,469
Total financial liabilities	$ 21,315,074	$	$	$ 21,315,074

	Fair Value Measurements at September 30, 2015 (Unaudited)			
	Total	Level 1	Level 2	Level 3
Financial assets carried at fair value:				
Cash equivalents:				
Money market funds	$ 1,269,047	$ 1,269,047	$	$
Short-term investments				
Certificates of deposit	7,089,727	7,089,727		
Corporate debt securities, available-for-sale	8,259,780		8,259,780	
Total financial assets	$ 16,618,554	$ 8,358,774	$ 8,259,780	
Financial liabilities carried at fair value:				
Debt conversion feature - current	$ 2,154,062	$	$	$ 2,154,062

Total financial liabilities	$ 2,154,062	$	$ 2,154,062

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The table below presents a summary of changes in the Company s accrued license fees and debt conversion feature measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended December 31, 2013 and 2014 and the nine months ended September 30, 2014 and 2015:

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014	2015
			(Unaudited)	(Unaudited)
Accrued license fees:				
Beginning balance	$	$	$	$ 19,865,863
Additions		21,687,576	21,687,576	
Adjustments resulting from changes in fair value recognized in earnings		(1,821,713)	264,112	9,381,848
Issuance of shares of common stock				(29,247,711)
Ending balance	$	$ 19,865,863	$ 21,951,688	$
Debt conversion feature:				
Beginning balance	$ 8,286	$ 71,655	$ 71,655	$ 1,449,211
Additions	42,747	1,768,319	1,492,072	
Adjustments resulting from changes in fair value recognized in earnings	20,622	(390,763)	(405,782)	826,637
Issuance of shares of common stock				(121,786)
Ending balance	$ 71,655	$ 1,449,211	$ 1,157,945	$ 2,154,062

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The following table sets forth the Company s valuation techniques and significant unobservable inputs used to determine fair value for significant Level 3 liabilities:

	Fair Value			Significant Unobservable Input	Range
	Assets	Liabilities	Valuation Technique(s)		
Accrued license fees:					
December 31, 2014	$	$ 19,865,863	Probability weighted expected return model	Probability weightings assigned to each scenario	30% to 40%
				Time assumptions to liquidation events	4/30/2015-3/31/2017
				Discount rates	12% to 60%
Debt conversion feature liability					
December 31, 2013	$	$ 71,655	Discounted cash flow model	Timing of the events	6/30/2014 to 1/1/2016
				Probabilities of Occurrence	35% to 60% for each
				Discount rate	40.0%
December 31, 2014	$	$ 1,449,211	Discounted cash flow model	Timing of the events	3/31/2015 to 6/30/2015
				Probabilities of Occurrence	30% to 40%
				Discount rate	37.5%
September 30, 2015 (unaudited)	$	$ 2,154,062	Discounted cash flow model	Timing of the events	5/21/2016
				Probabilities of Occurrence	100%
				Discount rate	37.5%

Level 3 Fair Value Sensitivity

Accrued license fees

For accrued license fees, generally increases (decreases) in the probability weightings assigned to each scenario would result in increases (decreases) to the fair value. In general, an increase (decrease) in discount rate tends to result in (decreases) increases to fair value.

Debt conversion features

The fair value of the debt conversion feature liabilities include the estimated timing of the events as well as the related probabilities of occurrence. The shorter/longer the period estimated to the events, the higher/lower the value of the debt conversion feature liabilities. The higher/lower the probability of occurrence, the higher/lower the value of the debt conversion feature liability.

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4. Agreements with Ligand Pharmaceuticals Incorporated

In May 2014, the Company entered into a master license agreement with Ligand (the Master License Agreement), pursuant to which, among other things, the Company acquired the rights to a number of research and development programs under patents related to the Company s VK5211, VK2809, VK0214, VK0612, EPOR and DGAT-1 programs, related know-how controlled by Ligand and physical quantities of VK5211, VK2809, VK0214, VK0612, EPOR and DGAT-1 compounds.

Pursuant to the terms of the Master License Agreement, the Company has the exclusive right and sole responsibility and decision-making authority for researching and developing any pharmaceutical products that contain or comprise one or any combination of the technology and compounds licensed from Ligand pursuant to the Master License Agreement (the Licensed Products). The Company also has the exclusive right and sole responsibility and decision-making authority to conduct all clinical trials and preclinical studies that the Company believes are appropriate to obtain the regulatory approvals necessary for commercialization of the Licensed Products, and the Company will own and maintain all regulatory filings and all regulatory approvals for the Licensed Products. Additionally, pursuant to the terms of the Master License Agreement, the Company has the sole decision-making authority and responsibility and the exclusive right to commercialize any of the Licensed Products, either by itself or, in certain circumstances, through sublicensees selected by the Company. The Company also has the exclusive right to manufacture or have manufactured any Licensed Product itself or, in certain circumstances, through sublicensees or third parties selected by the Company. The Company will own any intellectual property that it develops in connection with the license granted under the Master License Agreement.

As partial consideration for the grant of the rights and licenses to the Company under the Master License Agreement, the Company issued to Ligand at the closing of the IPO 3,655,964 shares of its common stock having an estimated aggregate value of $29.2 million. Furthermore, as partial consideration for the grant of the rights and licenses to the Company under the Master License Agreement the Company entered into the Loan and Security Agreement with Ligand (as discussed below).

As further partial consideration for the grant of the rights and licenses to the Company by Ligand under the Master License Agreement, the Company has agreed to pay to Ligand certain one-time, non-refundable milestone payments in connection with the Licensed Products of up to $1.54 billion in the aggregate upon the achievement of certain development, regulatory and sales milestones. The Company will also pay to Ligand royalties on aggregate annual worldwide net sales of Licensed Products by the Company, its affiliates and its sublicensees at tiered percentage rates from the low-to-upper single digits based upon net sales.

The term of the Master License Agreement will continue unless the agreement is terminated by the Company or Ligand, and each of the Company and Ligand have the right to terminate the Master License Agreement in certain circumstances, including, without limitation, if the other party defaults on certain of its obligations under the Master License Agreement.

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Ligand has the right to terminate the Master License Agreement under certain circumstances, including, but not limited to: (1) in the event of the Company s insolvency or bankruptcy, (2) if the Company does not pay an undisputed amount owing under the Master License Agreement when due and fails to cure such default within a specified period of time, or (3) if the Company defaults on certain of its material and substantial obligations and fails to cure the default within a specified period of time. The Company has the right to terminate the Master License Agreement under certain circumstances, including, but not limited to: (i) if Ligand does not pay an undisputed amount owing under the Master License Agreement when due and fails to cure such default within a specified period of time, or (ii) if Ligand defaults on certain of its material and substantial obligations and fails to cure the default within a specified period of time. In addition, provisions of the Master License Agreement can be terminated on a licensed program-by-program basis under certain circumstances. In the event that the Master License Agreement is terminated in its entirety or with respect to a specific licensed program for any reason: (A) all licenses granted to the Company under the Master License Agreement (or with respect to the specific licensed program) will terminate and the Company will, upon Ligand s request (subject to Ligand assuming legal responsibility for any clinical trials of the Licensed Products then ongoing), assign and transfer to Ligand (or to such transferee as Ligand may direct), at no cost to Ligand, all regulatory documentation and all regulatory approvals prepared or obtained by the Company or on its behalf related to the Licensed Products (or those related to the specific licensed program), or, if Ligand does not make such a request, the Company will wind down any ongoing clinical trials with respect to the Licensed Products (or those related to the specific licensed program) at no cost to Ligand; (B) the Company will, upon Ligand s request, sell and transfer to Ligand (or to such transferee as Ligand may direct), at a price equal to 125% of the Company s costs of goods, any and all chemical, biological or physical materials relating to or comprising the Licensed Products (or those related to the specific licensed program); (C) the Company will have, for a period of six months following termination, the right to sell on the normal business terms in existence before such termination any finished commercial inventory of Licensed Products (or those related to the specific licensed program) which remains on hand, so long as the Company pays to Ligand the applicable royalties and sales milestones; (D) Ligand has the right to require the Company to assign to Ligand the trademarks owned by the Company relating to the Licensed Products (or those related to the specific licensed program); and (E) the Company will grant to Ligand a non-exclusive, worldwide, royalty-bearing sublicensable license under any patent rights and know-how controlled by the Company to the extent necessary to make, have made, import, use, offer to sell and sell the Licensed Products (or those related to the specific licensed program) anywhere in the world at a royalty rate in the low single digits.

Under the Master License Agreement, the Company has agreed to indemnify Ligand for claims relating to the performance of the Company s obligations under the Master License Agreement, any breach of the representations and warranties made by the Company under the Master License Agreement, clinical trials conducted by the Company and the research, development and commercialization of the Licensed Products by the Company and its affiliates, sublicensees, distributors and agents. In addition, Ligand has agreed to indemnify the Company for claims relating to the performance of its obligations under the Master License Agreement, its breach of representations and warranties under the agreement and its research and development of the licensed compounds before the effective date of the Master License Agreement. Each party s indemnification obligations will not apply to the extent the claims result from the negligence or willful misconduct of the indemnified party or any of its employees, agents, officers or directors or from the indemnified party s breach of its representations or warranties set forth in the Master License Agreement.

On September 6, 2014, the Company and Ligand entered into an amendment to the Master License Agreement pursuant to which the parties agreed to certain modifications to the calculations used to determine the number of shares issuable to Ligand pursuant to the Master License Agreement. As a result of the modification, the Company incurred an incremental charge to research and development expense of $517,960 and a corresponding increase in the accrued license fees. In connection with entering into the Master License Agreement with Ligand, the Company entered into a loan and security agreement with Ligand, dated May 21, 2014 (the Loan and Security Agreement), pursuant to which, among other things, Ligand agreed to provide the Company with loans in the aggregate amount of

up to $2.5 million.

In May 2014, the Company also entered into a Management Rights Letter with Ligand that requires the Company to expand the size of the Company s board of directors to create an additional directorship on the Company s

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board of directors and to allow Ligand to appoint an individual to fill the new directorship. The Management Rights Letter will terminate upon the earliest to occur of the liquidation or indefinite cessation of the Company s business operations, the execution by the Company of a general assignment for the benefit of creditors or the appointment of a receiver or trustee to take possession of the Company s property and assets, an acquisition of the Company by means of any transaction (including, without limitation, any reorganization, merger or consolidation) if the Company s stockholders of record as constituted immediately prior to the transaction hold less than 50% of the voting power of the surviving or acquiring entity, or following the issuance of the Company s securities pursuant to the Master License Agreement, the date that Ligand ceases to beneficially own at least 7.5% of the Company s outstanding voting stock, or the date of May 21, 2024.

The Company also entered into a Registration Rights Agreement with Ligand in May 2014 for which the Company granted certain registration rights to Ligand with respect to the securities of the Company issued to Ligand pursuant to the Master License Agreement and the Ligand Note (collectively, the Viking Securities), the shares of the Company s common stock issued or issuable upon conversion of the Viking Securities, if applicable, the shares of the Company s common stock issued as a dividend or other distribution with respect to, in exchange for or in replacement of the Viking Securities and the shares of the Company s capital stock issued upon conversion of the Ligand Note, or collectively, the Registrable Securities.

Under the Registration Rights Agreement, the Company has agreed to file with the SEC, by no later than the first date on which the lock-up requested by the underwriters for the Company s initial public offering expires or lapses with respect to Ligand (or the first business day thereafter), a registration statement on Form S-1 under the Securities Act that covers the resale of the full amount of the Registrable Securities. The Company has agreed to use commercially reasonable efforts to have the Registration Statement declared effective by the SEC as soon as practically possible after it is filed with the SEC. There are certain cash payment penalties that the Company may need to pay to Ligand if the Company does not meet certain timelines with the SEC. The Company has also agreed to use commercially reasonable efforts to keep each Registration Statement filed pursuant to the Registration Rights Agreement effective for certain periods of time.

In May 2014, the Company entered into a Sublease Agreement with Ligand, as sublandlord, for approximately 5,851 square feet of individual and shared space within the building located at 11119 North Torrey Pines, San Diego, California 92037. Under the Sublease Agreement, the Company was required, among other things, to pay base rent in the amount of approximately $13,500 per month through December 31, 2014. The sublease commenced on May 21, 2014 and expired on December 31, 2014.

5. Accrued License Fees and License Fees Expense

As partial consideration for the grant of the rights and licenses to the Company under the Master License Agreement, the Company issued to Ligand at the closing of the Company s IPO 3,655,964 shares of its common stock having an estimated aggregate value of $29.2 million. Prior to this event, the Company had to determine how to account for the potential issuance of these shares to Ligand in accordance with the Master License Agreement. Under the Master License Agreement, in the event the Company consummated a firmly underwritten public offering pursuant to a Registration Statement on Form S-1 or any successor form (an Initial Public Offering), the Company would issue to Ligand at the closing of the Initial Public Offering a number of shares of its common stock having an estimated aggregate value of $29.0 million, subject to adjustment based on the deemed value of the Company as of immediately prior to the Initial Public Offering and the per share price at which shares of its common stock are sold in the Initial Public Offering. In the event the Company consummated a private financing of its equity securities (a Private Financing) prior to an Initial Public Offering, Ligand had the option to receive a number of shares of the same class

and type of securities issued and sold by the Company in the Private Financing having an estimated aggregate value of $29.0 million, subject to adjustment based on the deemed value of the Company as of immediately prior to the Private Financing and the per share price at which shares of our common stock are sold in the Private Financing, or, in lieu of receiving the same class and type of shares issued in the Private Financing, to defer its right to receive equity in the Company until an Initial Public Offering or subsequent private financing of the Company.

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Prior to the IPO, the Company reported the expected issuance of stock to Ligand under the Master License Agreement as a liability in accordance with ASC Topic 480, *Distinguishing Liabilities from Equity,* as it represents a conditional obligation that the Company must settle by issuing a variable number of shares of its common stock. The Company measured, at each reporting date until settled, the estimated amount of cash that would be paid if settlement occurred on the reporting date, with any changes in that fair market value reported as other expenses during the period of change. In accordance with this guidance, the Company determined its enterprise values as of May 21, 2014, the date the Master License Agreement was entered into, December 31, 2014, its most recent fiscal year end, and as of May 4, 2015, the closing date of the Company s IPO.

The fair value of the assets was determined using a PWERM, which incorporated relevant events and expected exit scenarios for the Company. The exit scenarios included an initial public offering, a merger or acquisition, which included an assumption of a Private Financing, and a scenario in which neither an initial public offering nor the merger or acquisition occurred. The enterprise value was based primarily on the market approach and probability-weighted expected exit values for the Company under each scenario. As of the execution of the Master License Agreement, the Company ascribed a percentage likelihood to each expected exit scenario, and each was less than 50%. However, since Ligand was entitled to receive shares under the Master License Agreement if either of these IPO or merger or acquisition scenarios were to occur, and the sum of the percentage likelihoods for the two exceeded 50%, the Company determined that a payout of shares was probable. Further, since the valuations would determine a value, the Company determined that the liability under the Master License Agreement should be reported as of the execution of the Master License Agreement. Similar publicly traded companies and merger or acquisition transactions were utilized as part of the market approach, and appropriate metrics were applied to the Company s numbers along with qualitative comparable assessments. The Company utilized a Monte Carlo simulation method to determine the weighted average per share value as of the acquisition date and in accordance with the Master License Agreement, utilized that per share value to calculate the estimated license fee liability as of May 21, 2014 to be $21,169,616. In addition, the Company incurred an incremental charge of $517,960 on September 6, 2014 related to the license fee liability pursuant to the amendment to the Master License Agreement.

Having determined the amount of the liability to be reported, the Company then evaluated whether to report the offset as an asset or as an expense. In accordance with ASC Topic 730, *Research and Development* , intangible assets that are acquired and have an alternative future use, as defined, should be capitalized and reported as an intangible asset; however, the cost of acquired intangible assets that do not have alternative future uses should be reported as research and development expense as incurred. The Company noted that the assets, the rights for which were acquired pursuant to the Master License Agreement, are in the preclinical and clinical stages, and not FDA approved. The Company has therefore interpreted the guidance to say that since these assets are not commercially readily saleable, i.e., they are still in preclinical and clinical trials, that they do not satisfy the definition of having an alternative future use, as defined. Accordingly, the Company recorded the offset to the license fee liability as research and development expense in May 2014.

The Company revalued the license fee liability as of December 31, 2014 using consistent methodology to that used for the May valuation; however, given the Company s recent refocus to certain other programs as well as some deemed market risks as of December 31, 2014, it revalued the license fee liability based upon these new programs; VK5211 to be used in hip fractures and VK0214 to be used in X-ALD; and, based upon their updated fair value, reported a decrease in the license fee liability and other expenses for the year ended December 31, 2014 in the amount of $1,821,713, to reduce the license fee liability to $19,865,863 as of December 31, 2014. During 2015, the Company continued to revalue the license fee liability under these new assumptions with any increases in that liability being recorded as Other expense. On May 4, 2015, upon the closing of the Company s IPO, the license fee liability was determined to be valued at $29,247,711 and the incremental amount of $9,381,848 was recorded as additional Other expense in the Company s Statement of Operations for the period from January 1, 2015 through May 4, 2015. In

accordance with the Master License Agreement, the Company issued 3,655,964 shares of its common stock having an estimated aggregate value equivalent to the May 4th license fee liability of $29,247,711 and offset this liability against its common stock and additional paid-in-capital.

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6. Convertible Notes Payable

Convertible notes payable consisted of the following at:

	December 31, 2013	December 31, 2014	September 30, 2015 (Unaudited)
Current maturities:			
Various convertible notes payable issued during 2012 with interest rates ranging from 2.16% to 4.32% annually, due during 2014	$ 50,000	$	$
Various convertible notes payable issued during 2013 with interest rates ranging from 2.16% to 4.68% annually, due during 2015		310,350	
Convertible note payable issued during 2014 to Ligand as part of the Master License Agreement with a 5% annual interest rate, due during 2016			2,500,000
Discount on notes payable, current	(3,106)	(6,076)	(588,976)
Convertible notes payable, current portion (net of discount)	$ 46,894	$ 304,274	$ 1,911,024
Long-term maturities:			
Various convertible notes payable issued during 2013 with interest rates ranging from 2.16% to 4.68% annually, due during 2015	$ 260,350	$	$
Convertible note payable issued during 2014 to Ligand as part of the Master License Agreement with a 5% annual interest rate, due during 2016		2,500,000	
Discount on notes payable, long-term	(28,499)	(1,235,886)	
Convertible notes payable, long-term (net of discount)	$ 231,851	$ 1,264,114	

In September 2012, the Company s board of directors authorized the Company to issue and sell up to an aggregate of $1.0 million in convertible promissory notes (the Notes) to accredited investors in one or more closings through September 2014 (the Note Authorization). The notes bore interest at a rate equal to the lesser of the short-term monthly applicable federal rate as published by the Internal Revenue Service or the maximum rate permissible by law. Interest under the Notes is due and payable at maturity. Unless repaid in full, amended or converted in full, each Note matured two years from its date of purchase. In the event that any principal amount due under the Notes was not paid in full by the maturity date, such unpaid principal amount would bear interest at the lesser of 2% or the maximum rate permissible by law.

If, prior to maturity of the Notes, the Company issues capital stock resulting in net proceeds of at least $5.0 million (a Qualifying Financing), the Notes will convert into shares of the capital stock issued in the Qualifying Financing. The number of shares issued upon conversion will be equal to the quotient obtained by dividing the then-outstanding loan balance by either 70% or 75%, as applicable, of the lowest purchase price paid per share paid by another investor in the Qualifying Financing. If, prior to the maturity of the Notes, the Company issues preferred stock in a financing that does not qualify as a Qualifying Financing (a Non-Qualifying Financing), the holders of the Notes will have the

option of converting their Notes into shares of the preferred stock issued in the Non-Qualifying Financing on the same terms as the investors in the Non-Qualifying Financing. In the event the Company undergoes a change in control, as defined in the Notes, prior to the maturity date and repayment of the Notes, the holders of the Notes will have the option to either (1) convert the loan balance into shares of the Company s common stock in an amount equal to the ratio of (a) the then-outstanding loan balance over (b) the ratio of $7,500,000 divided by the number of shares of capital stock of the Company outstanding immediately prior to the change in control, or (2) demand immediate repayment of an amount equal to 125% of the then-outstanding loan balance. If the Notes are still outstanding at their maturity date, the holders of the Notes have the option to either demand immediate repayment of all outstanding principal and interest or to convert the loan balance into shares of the Company s common stock in an amount equal to the ratio of the then-

outstanding loan balance over the ratio of $7,500,000 divided by the number of shares of capital stock of the Company outstanding immediately prior to the maturity date.

The debt conversion feature embedded in the Notes is accounted for under ASC Topic 815 *Derivatives and Hedging*. At issuance, the fair value of the debt conversion feature totaled $8,286 on the Notes issued during 2012 and $42,747 on the Notes issued during 2013. The fair value of the debt conversion feature was allocated from the gross proceeds of the Notes with the respective discount amortized to interest expense over the original term of the Notes using the effective interest method. The valuation of the bifurcated debt conversion feature was performed using Level 3 inputs, requiring the Company to make assumptions about the probability of the occurrence of a Qualifying Financing and the Notes being converted based on the applicable conversion terms. Alternative probabilities would have resulted in increases or decreases in the value of the debt conversion feature. The Company is required to mark to market the value of the conversion feature liability. Therefore, as of December 31, 2013 and December 31, 2014, the Company revalued the fair value of the debt conversion feature for each tranche and determined the conversion feature liability to be $71,655 and $58,742, respectively. The Company amortized $18,392 and $25,529 of the discount in 2013 and 2014, respectively.

Pursuant to the terms of the Note Authorization, from September 2012 through June 2013, the Company issued a total aggregate principal amount of $310,350 in Notes and recorded interest expense at interest rates ranging from 2.16% to 4.68% on an annual basis of $6,157 and $12,104 for the years ended December 31, 2013 and 2014, respectively. The cumulative accrued interest payable on the Notes as of December 31, 2014 was $18,611.

In accordance with the provisions of the convertible notes, on May 4, 2015, at the closing of the Company s IPO, the Company converted $310,350 of principal amounts owed plus $24,276 of accrued but unpaid interest as of that date on the Notes into 57,046 shares of the Company s common stock. The Company eliminated the notes payable and recorded the offsets to common stock and additional paid-in-capital.

The Company entered into a Loan and Security Agreement with Ligand on May 21, 2014, pursuant to which, among other things, Ligand agreed to provide the Company with loans in the aggregate amount of up to $2.5 million. Pursuant to the Loan and Security Agreement, Ligand initially loaned $1.0 million to the Company on May 27, 2014, and additional amounts of $250,000 to the Company each month from June 2014 through and including November 2014 for a total of $2.5 million. The principal amount outstanding under the loans accrue interest at a fixed per annum rate equal to the lesser of 5% and the maximum interest rate permitted by law. In the event the Company defaults under the loans, the loans will accrue interest at a fixed per annum rate equal to the lesser of 8% and the maximum interest rate permitted by law. The loans are and will be evidenced by a Secured Convertible Promissory Note (the Ligand Note). Pursuant to the terms of the Loan and Security Agreement and the Ligand Note, the loans will become due and payable upon the written demand of Ligand at any time after the earlier to occur of an event of default under the Loan and Security Agreement or the Ligand Note, and May 21, 2016, unless the loans are converted into equity prior to such time. Pursuant to the terms of the Loan and Security Agreement, the Company recorded interest expense of $58,611 during the year ended December 31, 2014, which remained payable as of December 31, 2014.

The debt conversion feature embedded in each tranche of the Ligand Note is accounted for under ASC Topic 815 *Derivatives and Hedging*. At each issuance date, the fair value of the debt conversion feature was determined. The fair value of the debt conversion feature was allocated from the gross proceeds of the Ligand Note with the respective discount amortized to interest expense over the original term of the Ligand Note using the effective interest method. The valuation of the bifurcated debt conversion feature was performed using Level 3 inputs, requiring the Company to make assumptions about the probability of the occurrence of a Qualified Private Financing or Initial Public Offering and the Ligand Note being converted based on the applicable conversion terms. Alternative probabilities would have

resulted in increases or decreases in the value of the debt conversion feature. The Company is required to mark to market the value of the conversion feature liability. Therefore, as of December 31, 2014, the Company revalued the fair value of the debt conversion feature for each tranche of the Note outstanding as of December 31, 2014, and determined the conversion feature liability to be $1,390,469. The Company amortized $532,433 of the discount during the year ended December 31, 2014.

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On April 8, 2015, the Company and Ligand entered into a First Amendment to Loan and Security Agreement with Ligand (the Loan Amendment), pursuant to which the parties agreed to amend, among other things, the timing of Ligand s conversion rights under the Secured Convertible Promissory Note issued to Ligand on May 21, 2014 (the Ligand Note) following certain Company transactions. Under the terms of the Loan Amendment, following the consummation of the earlier to occur of (1) a bona fide capital financing transaction or series of financing transactions with one or more financial non-strategic investors resulting in aggregate net proceeds to the Company of at least $20,000,000 and pursuant to which the Company issues shares of its equity securities, (2) a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended, on Form S-1 or Form S-3, or any successor forms, or (3) May 4, 2016 (the one year anniversary of the closing of the IPO), Ligand may elect to convert the Ligand Note into shares of the Company s common stock and/or cash in an amount equal to 200% of the principal amount of the loan plus all accrued and previously unpaid interest thereon. Additionally, pursuant to the Loan Amendment, Ligand has agreed that it will not, until the earlier of (A) 270 days from the date of conversion of the Ligand Note or (B) April 28, 2016 (one year following the date of the prospectus filed with the SEC relating to the IPO), sell or otherwise transfer or dispose of the shares of common stock issuable upon conversion of the Ligand Note.

As of September 30, 2015, the Ligand Note is recorded at $2,500,000, interest in the amount of $152,361 was payable on the note. During the nine months ended September 30, 2015, the Company also recorded $93,750 of interest expense, $646,911 of amortization of debt discount and $763,593 as other expense related to increases in the fair value of the debt conversion feature liability.

In connection with the Loan and Security Agreement, the Company also granted Ligand a continuing security interest in all of its right, title and interest in and to its assets as collateral for the full, prompt, complete and final payment and performance when due of all obligations under the Loan and Security Agreement and the Ligand Note.

7. Stockholders Equity (Deficit)

The Company is authorized to issue up to 300,000,000 shares of common stock, $0.00001 par value per share. On September 26, 2012, the Company issued 4,750,000 shares of common stock to its founders for the contribution of certain intellectual property and assets having a deemed fair value of $0.01 per share. The shares of common stock issued to the founders are subject to a repurchase feature whereby the Company can repurchase the stock if the applicable founder s arrangements with the Company are terminated. The repurchase feature lapses over time and the repurchase option immediately ceases upon the occurrence of certain triggering events. The related expense is being charged over the requisite service period. At December 31, 2014, 3,918,746 shares were no longer subject to the repurchase option. See below regarding the repurchase of certain of these shares.

On September 26, 2012, the Company also issued 250,000 shares of common stock for the contribution of certain intellectual property and assets having a deemed fair value of $0.01 per share, to a consultant. The shares of common stock issued to the consultant were subject to a repurchase feature whereby the Company can repurchase the stock if the consultant s arrangement with the Company is terminated. The repurchase feature lapses over time. In June 2013, the Company exercised its right to repurchase all 250,000 shares of its common stock in connection with the termination of the consulting arrangement. The Company paid $2,500 in cash, representing an approximate fair value of $0.01 per share, to repurchase such shares of common stock.

During fiscal year 2013, the Company sold an additional 700,000 shares of its common stock to consultants. The purchase price of the shares of common stock was $0.01, which approximated fair value. The Company received a total of $7 in cash and $6,993 in notes receivable as consideration for the issuance of the 700,000 shares of common stock. The shares of common stock were subject to repurchase features whereby the Company can repurchase the

shares from the consultants if their arrangements with the Company are terminated. The repurchase features lapse over time. In June 2013, the Company exercised its right to repurchase 250,000 shares of its common stock issued earlier in 2013 in connection with the termination of one of the consulting

arrangements. The Company paid $3 in cash to refund the cash contributed by the consultant and eliminated the $2,497 note receivable issued by the consultant to the Company. In March 2014, the Company terminated another one of the consulting agreements. In conjunction with the termination of the consulting agreement, the Company exercised its right to repurchase 200,000 shares by repaying the $2 in cash contributed by the consultant and eliminating the $1,998 note receivable issued by the consultant to the Company. In May 2014, the Company forgave the remaining notes receivable balance of $2,581, which included $2,498 of principal and $83 of interest from one of its consultants in consideration for services rendered by the consultant. At December 31, 2014, there was $435 of total unrecognized compensation costs related to these shares, which are expected to be recognized over a weighted-average period of 2.25 years. During the nine months ended September 30, 2015, the Company recorded stock compensation of $145 related to these share issuances.

In connection with the preparation of the financial statements necessary for inclusion in a registration statement, in May 2014 the Company reassessed the estimated fair value of its common stock for financial reporting purposes. The Company reassessed the estimated fair value of its common stock for each quarterly period from its inception on September 24, 2012 through December 31, 2013. Valuation analyses were performed as of September 26, 2012, April 15, 2013 and July 15, 2013 (the respective dates of stock activity noted above). The Company concluded that its shares of common stock as of each such date had a fair value less than or equal to the then estimated fair value of common stock at the date of issuance. Therefore, no additional stock expense was required to be expensed by the Company.

In February 2014, the Company entered into a stock purchase agreement with one of its founders. The agreement provides for the purchase of 1,000,000 shares of the Company s common stock at a price per share of $0.01 in exchange for future services to be rendered to the Company as measured by certain performance criteria. The shares are subject to a repurchase option and vest in two tranches of 500,000 shares each, upon achievement of the performance target or upon a triggering event as defined.

To appropriately account for this stock purchase, the Company determined the fair value of the common stock on the date of purchase as well as the likelihood of achievement of each of the performance conditions included in the agreement. The valuation methodology utilized in determining fair value relied on the PWERM, which incorporates relevant events and expected future exit scenarios for the Company. The exit scenarios included merger and acquisition and initial public offering scenarios. The enterprise value under each scenario was based primarily on the market approach and probability-weighted expected exit values for the Company under each scenario. Similar merger and acquisition transactions and publicly traded companies were utilized within the market approach and appropriate metrics were applied to the Company along with qualitative comparable assessments. The indicated value under the market approach was used as the starting aggregate value for the valuation of these performance-based shares. The Company utilized a Monte Carlo simulation method to determine the fair value of the performance-based shares as of the issuance date. The Monte Carlo simulation method takes into consideration the expected timing of the performance milestones, probability of achieving the milestones and estimated per share common stock prices at expected vesting dates.

The Company determined that the issuance in February 2014 had a deemed fair value lower than the reassessed fair value of the common stock on the date of issuance based upon the PWERM. Since the stock issuance to the founder is tied to certain performance criteria, the Company reviewed the probability of achieving such criteria at February 20, 2014, December 31, 2014 and September 30, 2015 and determined that it was not probable that the criteria would be met. Therefore, no compensation expense has been recorded for this issuance through September 30, 2015. The Company will continue to reassess at each reporting period whether it is probable that either of the two performance criteria will be met, and if and when either are deemed probable, the Company will begin to record compensation expense using the fair value to determine stock-based compensation expense in its financial statements over the period

the Company estimates the performance criteria will actually be met. The Company determined that the fair value of the unrecognized expense was approximately $168,000 at February 20, 2014, the grant date. In May 2015, the Company repurchased 633,810 of these shares at a purchase price of $0.00001 per share. In connection with the repurchase, the Company entered into an amendment to the

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stock purchase agreement to provide that the remaining 366,190 shares will continue to vest in two tranches of 183,095 shares each, upon achievement of the performance target or upon a triggering event as defined. The pro rata fair value of the unrecognized expense is $61,566.

In June 2014, the Company entered into employment agreements with each of its five employees pursuant to which, among other things, each employee agreed to be paid a lower salary during the period of time between the signing of his or her employment agreement and the date of the closing of the Company s IPO. In exchange for this agreement to receive a lower salary, the Company agreed to issue, on the date of the closing of the IPO, to each of these employees a certain amount of fully vested restricted stock equal to the quotient of (1) the product of 150% of the difference between the employee s post-IPO salary and his or her pre-IPO salary multiplied by the number of days between the date of the closing of the IPO and the date of execution of the employee s employment agreement, divided by (2) the product of 365 multiplied by the closing sales price of the Company s common stock on the date of the closing of the IPO. Since the likelihood of an IPO was deemed to be less than probable as of December 31, 2014, the Company determined that it was not required to record the liability, which, as of December 31, 2014, would have been $520,476, with respect to the potential issuance of these shares of fully vested restricted stock as of December 31, 2014, as it was less than probable that the Company would be required to issue such shares of fully vested restricted stock. Upon the closing of the IPO in May 2015, the Company issued 56,997 shares, net of shares withheld for taxes, in accordance with these agreements.

In September 2014, the Company entered into a stock repurchase agreement (the Stock Repurchase Agreement) with each of its existing stockholders. Pursuant to the Stock Repurchase Agreement, the Company agreed to repurchase prior to the completion of the IPO, on a pro rata basis from each of the holders of its outstanding common stock, shares of the Company s common stock from these stockholders at a purchase price of $0.00001 per share. The number of shares of common stock that the Company will repurchase pursuant to the Stock Repurchase Agreement and prior to the completion of the IPO is based on a formula in accordance with the Stock Repurchase Agreement. In accordance with this agreement, on May 4, 2015, the Company repurchased an aggregate of 3,802,859 shares of its common stock from its stockholders at a price of $0.00001 per share for an aggregate purchase price of $38.

On April 8, 2015, the Company entered into a Second Amendment to Master License Agreement with Ligand, pursuant to which the parties agreed to revise (1) the calculations used to determine the number of securities to be issued to Ligand upon the closing of the IPO, and (2) certain of the royalty percentages payable by the Company to Ligand based on worldwide annual net sales of the products licensed under the Master License Agreement.

Further, on April 8, 2015, the Company and Ligand entered into a First Amendment to Loan and Security Agreement with Ligand (the Loan Amendment), pursuant to which the parties agreed to amend, among other things, the timing of Ligand s conversion rights under the Secured Convertible Promissory Note issued to Ligand on May 21, 2014 (the Ligand Note) following certain Company transactions. Under the terms of the Loan Amendment, following the consummation of the earlier to occur of (1) a bona fide capital financing transaction or series of financing transactions with one or more financial non-strategic investors resulting in aggregate net proceeds to the Company of at least $20,000,000 and pursuant to which the Company issues shares of its equity securities, (2) a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended, on Form S-1 or Form S-3, or any successor forms, or (3) May 4, 2016 (the one year anniversary of the closing of the IPO), Ligand may elect to convert the Ligand Note into shares of the Company s common stock and/or cash in an amount equal to 200% of the principal amount of the loan plus all accrued and previously unpaid interest thereon. Additionally, pursuant to the Loan Amendment, Ligand has agreed that it will not, until the earlier of (A) 270 days from the date of conversion of the Ligand Note or (B) April 28, 2016 (one year following the date of the prospectus filed with the SEC relating to the IPO), sell or otherwise transfer or dispose of the shares of common stock issuable upon conversion of the Ligand Note.

On May 4, 2015, the Company completed the IPO pursuant to a Registration Statement on Form S-1 that was declared effective on April 28, 2015. In the IPO, the Company sold 3,000,000 shares of its common stock at an

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initial public offering price of $8.00 per share. The underwriters for the IPO had 30 days to exercise an over-allotment option to purchase up to an additional 450,000 shares at the initial public offering price, less the underwriting discount. Upon the closing of the IPO, on May 4, 2015, the Company raised a total of $22,080,500 in net proceeds after deducting underwriting discounts, commissions and a non-accountable expense allowance in an aggregate amount of $1,919,500, but before deducting other offering costs and expenses. Costs directly associated with the IPO of $2,980,000 were capitalized and recorded as deferred IPO costs prior to the closing of the IPO. These costs have been recorded as a reduction of the proceeds received in arriving at the amount to be recorded in additional paid-in capital upon completion of the IPO.

On April 28, 2015, the date of the execution and delivery of the underwriting agreement for the IPO, the Company granted stock options to purchase an aggregate of 83,144 shares of the Company s common stock to the non-employee directors of the Company.

Upon the closing of the IPO in May 2015, the Company (1) converted $27,422,872 of accrued license fees as of May 4, 2015 into an aggregate of 3,427,859 shares of the Company s common stock issued to Ligand and Metabasis Therapeutics, Inc., a wholly-owned subsidiary of Ligand (Metabasis) pursuant to the Master License Agreement; (2) incurred a non-cash interest charge of $4,421,338 at the time of conversion of the accrued license fees, relating to the difference between the carrying amounts of the $24,826,374 of accrued license fees and the fair market value of the shares issued in the IPO; (3) converted $310,350 of the Company s convertible notes payable plus interest of $24,276 as of May 4, 2015 into 57,046 shares of the Company s common stock; (4) incurred a beneficial conversion charge of $121,786; and (5) issued an aggregate of 422,879 shares of the Company s common stock and granted options to purchase an aggregate of 206,000 shares of the Company s common stock to its employees, directors and a consultant of the Company pursuant to employment agreements, offer letters and a consulting agreement.

On May 26, 2015, the underwriters for the IPO exercised their full over-allotment option to purchase an additional 450,000 shares of the Company s common stock at $8.00 per share, less the underwriting discount. On May 28, 2015, the Company sold the 450,000 shares to the underwriters pursuant to the over-allotment option and received additional net proceeds of $3,312,000, after deducting underwriting discounts and commissions of $288,000, but before deducting other offering costs and expenses. Upon the closing of the over-allotment option, pursuant to the Master License Agreement, on May 28, 2015, the Company issued an additional aggregate of 228,105 shares of its common stock to Ligand and Metabasis.

On May 20, 2015, and in accordance with the Company s 2014 Employee Stock Purchase Plan (the ESPP), the Company issued 282 shares of its common stock to certain employees.

8. Stock-Based Compensation

In connection with the IPO, the 2014 Plan and the ESPP became effective on April 28, 2015, the date of the execution and delivery of the underwriting agreement for the IPO. A total of 1,527,770 shares of the Company s common stock were reserved for issuance under the 2014 Plan, and 458,331 shares of the Company s common stock were reserved for issuance under the ESPP.

The Company generally uses the straight-line or graded vesting method to allocate compensation cost to reporting periods over each optionee s requisite service period, which is generally the vesting period, and estimates the fair value of stock-based awards or restricted stock units to employees and directors using the Black-Scholes option-valuation model. For options with a graded vesting schedule, the Company uses the graded vesting schedule to allocate compensation cost to reporting periods. The Black-Scholes model requires the input of subjective assumptions,

including volatility, the expected term and the fair value of the underlying common stock on the date of grant, among other inputs. Stock options granted to non-employees are accounted for using the fair value approach. Stock options granted to non-employees are subject to periodic revaluation over their vesting terms.

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2014 Plan. The 2014 Plan provides that the compensation committee of the Company s Board of Directors (the Compensation Committee) may grant or issue stock options, stock appreciation rights, restricted shares, restricted stock units and unrestricted shares, deferred share units, performance and cash-settled awards and dividend equivalent rights to participants under the 2014 Plan. Initially, a total of 1,527,770 shares of the Company s common stock were reserved for issuance pursuant to the 2014 Plan, which number is also the limit on shares of common stock available for awards of incentive stock options. The number of shares available for issuance under the 2014 Plan will, unless otherwise determined by the Company s Board of Directors or the Compensation Committee, be automatically increased on January 1st of each year commencing on January 1, 2016 and ending on (and including) January 1, 2024, in an amount equal to 3.5% of the total number of shares of the Company s common stock outstanding on December 31st of the preceding calendar year. The shares of common stock deliverable pursuant to awards under the 2014 Plan are authorized but unissued shares of the Company s common stock, or shares of the Company s common stock that the Company otherwise holds in treasury or in trust. Any shares of the Company s common stock underlying awards that are settled in cash or otherwise expire, or are forfeited, terminated or cancelled (including pursuant to an exchange program established by the Compensation Committee) prior to the issuance of stock will again be available for issuance under the 2014 Plan. In addition, shares of the Company s common stock that are withheld (or not issued) in payment of the exercise price or taxes relating to an award, and shares of the Company s common stock equal to the number surrendered in payment of any exercise price or withholding taxes relating to an award, will again be available for issuance under the 2014 Plan.

ESPP. Initially, a total of 458,331 shares of the Company s common stock were reserved for issuance pursuant to the ESPP. The number of shares available for issuance under the ESPP will, unless otherwise determined by the Company s Board of Directors or the Compensation Committee, be automatically increased on January 1st of each year commencing on January 1, 2016 and ending on (and including) January 1, 2024, in an amount equal to 1% of the total number of shares of the Company s common stock outstanding on December 31st of the preceding calendar year. The shares of common stock available for purchase pursuant to the ESPP are authorized but unissued shares of the Company s common stock, shares of the Company s common stock that the Company otherwise holds in treasury or shares of the Company s common stock that were purchased on the open market in arms length transactions in accordance with applicable securities laws. Shares of the Company s common stock will be offered for purchase under the ESPP as determined by the Compensation Committee through a series of successive offerings that each have a term of 24 months and consist of four consecutive purchase periods of six months each. Prior to the commencement of any future offering under the ESPP, the Compensation Committee may determine that the current offering shall end, may commence a new offering on the first day after the end of such terminal purchase period (or any desired later date), and may decide that future offerings will consist of one or more consecutive purchase periods, each to be of such duration as determined by the Compensation Committee; however, no offering will exceed 27 months and no purchase period will exceed one year. Each employee of the Company who (1) is an employee on the first date of any offering under the ESPP, (2) is customarily scheduled to work for more than 20 hours per week and more than five months per calendar year, and (3) meets such other criteria as may be determined by the Compensation Committee (consistent with Section 423 of the Internal Revenue Code of 1986, as amended), is eligible to participate in the ESPP for each purchase period within such offering. The purchase price per share of the Company s common stock under the ESPP may not be less than, and will initially be equal to, the lesser of: (1) 85% of the fair market value per share of the Company s common stock on the first day of the offering, or (2) 85% of the fair market value per share of the Company s common stock on the date the purchase right is exercised, which will be the last day of the applicable purchase period.

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During the years ended December 31, 2013 and 2014 and the three and nine months ended September 30, 2015 and 2014, the Company recognized the following stock-based compensation expense:

	Year Ended December 31,		Nine Months Ended September 30,	
	2013	2014	2014	2015
			(Unaudited)	(Unaudited)
Stock-based compensation expense by type of award:				
Stock options	$	$	$	$ 725,572
Restricted stock and restricted stock units	3,554	6,258	5,355	1,348,432
Total stock-based compensation expense included in expenses	$ 3,554	$ 6,258	$ 5,355	$ 2,074,004
Stock-based compensation expense by line item:				
Research and development expenses	$ 750	$ 2,643	$ 2,643	$ 665,226
General and administrative expenses	2,804	3,615	2,712	1,408,778
Total stock-based compensation expense included in expenses	$ 3,554	$ 6,258	$ 5,355	$ 2,074,004

The following table sets forth the Company s unrecognized stock-based compensation expense, net of estimated forfeitures, by type of award and the weighted-average period over which that expense is expected to be recognized:

	Unrecognized Expense, Net of Estimated Forfeitures	Weighted-average Recognition Period
As of December 31, 2013		(in years)
Restricted stock	$ 175,031	1.20
As of December 31, 2014		
Restricted stock	$ 171,271	0.60
As of September 30, 2015 (Unaudited)		
Type of award:		
Stock options	$ 2,023,067	2.80
Restricted stock and restricted stock units	$ 2,731,371	2.85

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The following table is a summary of restricted shares granted during the years ended December 31, 2013, December 31, 2014 and the nine months ended September 30, 2015:

	Shares		Weighted-Average Grant Date Fair Value
Unvested at December 31, 2012	3,297,917	$	0.003
Granted	450,000	$	0.002
Vested	(1,108,334)	$	0.003
Forfeited	(250,000)		0.003
Unvested at December 31, 2013	2,389,583	$	0.003
Granted	1,000,000	$	0.17
Vested	(1,170,831)	$	0.003
Forfeited	(200,000)	$	0.002
Unvested at December 31, 2014	2,018,752	$	0.08
Granted	462,090	$	9.49
Vested	(702,165)	$	1.37
Forfeited		$	
Repurchased	(1,005,714)	$	0.03
Unvested at September 30, 2015 (Unaudited)	772,963	$	4.45

There were no option grants during the years ended December 31, 2013 and December 31, 2014. The following table summarizes stock option activity during the nine months ended September 30, 2015:

	Shares		Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)
Options outstanding at December 31, 2014		$		
Granted	443,894	$	8.49	
Exercised		$		
Cancelled	(33,750)	$	9.49	
Options outstanding at September 30, 2015 (Unaudited)	410,144	$	8.41	9.66
Options exercisable at September 30, 2015 (Unaudited)	51,500	$	9.49	9.60

There were no restricted stock units issued during the years ended December 31, 2013 and 2014. During the nine months ended September 30, 2015, the Company issued an aggregate of 84,000 restricted stock units to certain employees of the Company.

On October 1, 2015, 105,000 shares of restricted stock were forfeited.

Compensation expense for stock options granted to employees is based on the estimated grant date fair value and is recognized ratably over the vesting period of the applicable option. The estimated per share weighted average fair value of stock options granted to employees during the nine months ended September 30, 2015 was $6.25. The options outstanding and exercisable at September 30, 2015 had no intrinsic value in the aggregate.

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As stock-based compensation expense recognized is based on options ultimately expected to vest. The fair value of each employee option grant during the nine months ended September 30, 2015 was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	Nine Months Ended September 30, 2015 (Unaudited)
Expected volatility	85.2%
Expected term (in years)	6.49
Risk-free interest rate	1.81%
Expected dividend yield	0%

Expected Volatility. The expected volatility rate used to value stock option grants is based on volatilities of a peer group of similar companies whose share prices are publicly available. The peer group was developed based on companies in the pharmaceutical and biotechnology industry in a similar stage of development to the Company.

Expected Term. The Company elected to utilize the simplified method for plain vanilla options to value stock option grants. Under this approach, the weighted-average expected life is presumed to be the average of the vesting term and the contractual term of the option.

Risk-free Interest Rate. The risk-free interest rate assumption was based on zero-coupon U.S. Treasury instruments that had terms consistent with the expected term of the Company s stock option grants.

Expected Dividend Yield. The Company has never declared or paid any cash dividends and does not presently plan to pay cash dividends in the foreseeable future.

Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from estimates. The Company estimates forfeitures based on its historical experience. Groups of employees that have similar historical forfeiture behavior are considered separately for expense recognition.

Since the Company had a net operating loss carryforward as of September 30, 2015, no excess tax benefits for the tax deductions related to stock-based awards were recognized in the Statements of Operations.

9. Representative s Warrant

Upon the closing of the IPO, on May 4, 2015, the Company issued to the representative of the underwriters as additional compensation a warrant to purchase the aggregate of 82,500 shares of the Company s common stock. The warrant is exercisable for cash or on a cashless basis at a per share exercise price equal to $10.00 commencing on April 28, 2016, one year following the date of the prospectus filed with the SEC relating to the IPO, and expiring on April 28, 2020. In addition, the warrant provides for registration rights upon request, under certain circumstances. The piggyback registration right provided in connection with the warrant will terminate on April 28, 2022.

10. Income Taxes

The reconciliations of the U.S. federal statutory rate to the effective income tax rate for the years ended December 31, 2013 and 2014 are as follows:

	December 31,	
	2013	**2014**
Tax provision at U.S. Federal statutory rates	34%	34%
State income taxes net of federal benefit	6%	8%
Non-deductible permanent items	(6%)	(1%)
Stock options		
Other		
Change in valuation allowance	(34%)	(41%)
Effective income tax rate		

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Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company s deferred taxes as of December 31, 2013 and 2014 are as follows:

	December 31,	
	2013	2014
Deferred tax assets:		
Intangible assets	$ 18,086	$ 7,993,293
Net operating loss carryforwards	64,772	548,247
Share-based compensation	3,747	6,306
Other	8,680	530
Total deferred tax assets	95,285	8,548,376
Valuation Allowance	(95,285)	(8,403,620)
Net deferred tax assets	$	$ 144,756
Deferred tax liabilities:		
Debt conversion feature	$	$ (144,756)
Total:	$	$

A valuation allowance of approximately $95,000 and $8,404,000 at December 31, 2013 and December 31, 2014, respectively, has been recorded to offset net deferred tax assets, as the Company is unable to conclude that it is more likely than not that such deferred tax assets will be realized.

At December 31, 2014, the Company had federal and state net operating loss carryforwards, each in the amount of approximately $1,402,000. The federal and state net operating loss carryforwards will begin to expire in 2032. The Company s ability to utilize its federal net operating loss carryforwards may be limited under Section 382 of the Internal Revenue Code of 1986, as amended (the Code). Specifically, this limitation may arise in the event of an ownership change, which is defined by Section 382 of the Code as a cumulative change in ownership of the Company of more than 50% within a three-year period. If the Company undergoes one or more ownership changes in connection with any future transactions in its stock, the Company s ability to utilize net operating loss carryforwards to offset federal taxable income, if any, could potentially result in increased future tax liability to the Company.

As of December 31, 2014, the Company had no material unrecognized tax benefits, interest or penalties related to federal and state income tax matters. The Company s policy is to recognize interest and penalties accrued on any unrecognized tax benefits as a component of income tax expense.

The Company is subject to U.S. federal income tax as well as New York income tax. The Company is currently open to audit under the statute of limitations by the Internal Revenue Service and the New York Department of Taxation for the years ended December 31, 2012, 2013 and 2014.

The differences between the Company s effective income tax rate and the statutory federal rate for the year ended December 31, 2013 and the year ended December 31, 2014 relate primarily to losses incurred for which no tax benefit

was recognized, due to the uncertainty of realization. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the period in which those temporary differences become deductible. The Company considers projected future taxable income and tax planning strategies in making this assessment. At each of December 31, 2013 and December 31, 2014, the Company provided a full valuation allowance against its deferred tax assets due to uncertainty surrounding the realization of those assets as a result of historical taxable net losses.

The Company has reviewed its operations and has not identified any material uncertain tax positions. As a result, there is no liability for uncertain tax positions in the income tax provision as of December 31, 2013 or

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December 31, 2014. Tax years ended December 31, 2012, 2013 and 2014 remain subject to examination by major tax jurisdictions.

11. Related Party Transactions

Agreements with Ligand

In May 2014, the Company entered into a Master License Agreement with Ligand, pursuant to which, among other things, Ligand granted the Company exclusive worldwide license to certain clinical and preclinical programs. See Note 4 for more information related to this agreement. In connection with entering into the Master License Agreement, the Company also entered into a Loan and Security Agreement (see Note 6), and a sublease and services agreement (See Note 4). Since the Ligand currently owns 49.4% of the Company s outstanding shares, the Company considers Ligand to be a related party.

12. Commitments and Contingencies

In May 2014, the Company entered into a master license agreement with the licensor that included a license to the products covered by the option. See Note 4 for a description of the terms of the Master License Agreement. As noted in Note 4, in connection with the Master License Agreement, the Company also entered into a Sublease Agreement with Ligand, pursuant to which the Company leased approximately 5,851 square feet of office space from Ligand for the period from May 21, 2014 through December 31, 2014. Under the terms of the Sublease Agreement, the Company was required to make minimum lease payments of approximately $167,000. Rent expense was $7,237, and $186,774 for the years ended December 31, 2013 and 2014, respectively.

On July 7, 2015, the Company entered into a Sublease (the Sublease) for approximately 7,049 rentable square feet of space located at 12340 El Camino Real, Suite 250, San Diego, California 92130.

The Company is subject to charges for common area maintenance and other costs pursuant to the Sublease, and the Sublease provides for abatement of rent during certain periods and escalating rent payments throughout the term of the Sublease. Rent expense is being recorded on straight line basis over the life of the Sublease and the difference between the rent expense and rent paid is being recorded as deferred rent.

Future minimum payments pursuant to the Sublease are as follows (Unaudited):

Year Ending December 31:		
2015 (Three months remaining)	$	39,474
2016		199,740
2017		247,611
2018		190,337
Total minimum lease payments	$	677,162

13. Subsequent Events (Unaudited)

The Company evaluated subsequent events through November 23, 2015, the date of the filing of this Registration Statement with the SEC, to ensure that this filing includes appropriate disclosure of events both recognized in the financial statements as of September 30, 2015, and events which occurred subsequent to September 30, 2015 but were not recognized in the financial statements. The Company has determined that there were no subsequent events which required recognition, adjustment to or disclosure in the financial statements.

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$10,000,000

Common Stock

PROSPECTUS

, 2015

You should rely only on the information contained in this prospectus. No dealer, salesperson or other person is authorized to give information that is not contained in this prospectus. This prospectus is not an offer to sell nor is it seeking an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus is correct only as of the date of this prospectus, regardless of the time of the delivery of this prospectus or any sale of these securities.

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth all expenses to be paid by Viking Therapeutics, Inc. (the Registrant), other than underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the SEC registration fee and the Financial Industry Regulatory Authority, Inc. filing fee.

SEC registration fee	$ 1,158.05
Financial Industry Regulatory Authority, Inc. filing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Blue sky fees and expenses	*
Miscellaneous fees and expenses	*
Total	$ *

* To be completed by amendment.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the General Corporation Law of the State of Delaware, or the DGCL, authorizes a corporation s board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that limit the liability of the Registrant s directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, the Registrant s directors are not personally liable to the Registrant or the Registrant s stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

- any breach of their duty of loyalty to the Registrant or the Registrant stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the DGCL; or

any transaction from which they derived an improper personal benefit.

Any amendment to, or repeal of, these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment or repeal. If the DGCL is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of the Registrant s directors will be further limited to the greatest extent permitted by the DGCL.

The Registrant s amended and restated certificate of incorporation provides that the Registrant will, under certain circumstances, indemnify any director, officer, employee or agent of the Registrant, subject to any provisions

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contained in the Registrant s amended and restated bylaws. The Registrant s amended and restated bylaws provide that the Registrant will indemnify, to the fullest extent permitted by law, each person who was or is made a party or is threatened to be made a party to, or is otherwise involved in, any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Registrant, or is or was serving at the request of the Registrant, as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against all expense, liability and loss (including, among other things, attorney s fees and amounts paid in settlement) reasonably incurred or suffered by such director, officer, employee or agent in connection therewith, subject to certain conditions. The Registrant s amended and restated bylaws also provide the Registrant with the power to, to the extent authorized by the Registrant s board of directors, grant rights to indemnification and to advancement of expenses to any employee or agent of the Registrant to the fullest extent indemnification may be granted to the Registrant s directors and officers. In addition, the Registrant s amended and restated bylaws provide that the Registrant must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to certain exceptions.

The Registrant has indemnification agreements with each of its directors and executive officers that may be broader than the specific indemnification provisions contained in the DGCL. These indemnification agreements require the Registrant, among other things, to indemnify its directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also require the Registrant to advance all expenses incurred by the directors and executive officers in investigating or defending any such action, suit or proceeding, subject to certain exceptions. The Registrant believes that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

The limitation of liability and indemnification provisions that are included in the Registrant s amended and restated certificate of incorporation, amended and restated bylaws and indemnification agreements with its directors and executive officers may discourage stockholders from bringing a lawsuit against the Registrant s directors and executive officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against the Registrant s directors and executive officers even though an action, if successful, might benefit the Registrant and other stockholders. Further, a stockholder s investment may be adversely affected to the extent that the Registrant pays the costs of settlement and damage awards against directors and executive officers as required by these indemnification provisions. At present, the Registrant is not aware of any pending litigation or proceeding involving any person who is or was one of its directors, officers, employees or other agents or is or was serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, for which indemnification is sought, and the Registrant is not aware of any threatened litigation that may result in claims for indemnification.

The Registrant s amended and restated bylaws provide that the Registrant may purchase and maintain insurance, at its expense, to protect itself and any person who is or was a director, officer, employee or agent of the Registrant or is or was serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Registrant would have the power to indemnify such person against such expense, liability or loss under the DGCL. The Registrant maintains insurance under which, subject to the limitations of the insurance policies, coverage is provided to the Registrant s directors and executive officers against loss arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or executive officer, including claims relating to public securities matters, and to the Registrant with respect to payments that may be made by the Registrant to these directors and executive officers pursuant to the Registrant s indemnification obligations or otherwise as a matter of law.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters of the Registrant and its officers and directors for certain liabilities arising under the Securities Act and otherwise.

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ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

Since September 24, 2012 (Inception), the Registrant has issued the following securities that were not registered under the Securities Act:

(1) On September 26, 2012, the Registrant issued and sold an aggregate of 5,000,000 shares of the Registrant s common stock to two executive officers and one former consultant at a deemed fair value per share of $0.01 in exchange for the contribution of certain intellectual property and assets to the Registrant having a deemed value of $50,000. The Registrant repurchased 250,000 of these shares for $2,500 on June 25, 2013.

(2) On September 26, 2012, the Registrant issued and sold an aggregate of $35,000 in convertible promissory notes to two of its executive officers.

(3) On October 1, 2012, the Registrant issued and sold a convertible promissory note having an aggregate principal amount of $15,000 to one accredited investor.

(4) On April 15, 2013, the Registrant issued and sold an aggregate of 500,000 shares of the Registrant s common stock to one executive officer and one former consultant at a price per share of $0.01, for an aggregate purchase price of $5,000. The Registrant repurchased 250,000 of these shares for $2,500 on June 25, 2013.

(5) On May 15, 2013, the Registrant issued and sold a convertible promissory note having an aggregate principal amount of $55,350 to one of its executive officers.

(6) Between May 22, 2013 and May 24, 2013, the Registrant issued and sold an aggregate of $165,000 in convertible promissory notes to five accredited investors.

(7) On June 11, 2013, the Registrant issued and sold a convertible promissory note having an aggregate principal amount of $25,000 to one accredited investor.

(8) On June 27, 2013, the Registrant issued and sold a convertible promissory note having an aggregate principal amount of $15,000 to one accredited investor.

(9) On July 15, 2013, the Registrant issued and sold an aggregate of 200,000 shares of the Registrant s common stock to a former consultant at a price per share of $0.01, for an aggregate purchase price of $2,000. These shares were repurchased by the Registrant for $2,000 on March 7, 2014.

(10)

On February 20, 2014, the Registrant issued and sold an aggregate of 1,000,000 shares of the Registrant s common stock to one of its executive officers at a deemed fair value per share of $0.01 in exchange for the contribution of services to the Registrant having a deemed value of $10,000.

(11) On May 27, 2014, the Registrant issued and a sold a convertible promissory note having an aggregate principal amount of $1,000,000 to one accredited investor. The aggregate principal amount of the convertible promissory note was increased to $1,250,000 on June 1, 2014, $1,500,000 on July 1, 2014, $1,750,000 on August 1, 2014, $2,000,000 on September 2, 2014, $2,250,000 on October 1, 2014 and $2,500,000 on November 3, 2014.

(12) Prior to the filing of the Registrant s registration statement on Form S-8 on May 1, 2015, the Registrant granted stock options to directors under the Viking Therapeutics, Inc. 2014 Equity Incentive Plan to purchase an aggregate of 83,144 shares of the Registrant s common stock, at a weighted-average exercise price of $8.00 per share.

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The offers, sales and issuances of the securities described in each of the paragraphs above were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(a)(2) of the Securities Act as transactions by an issuer not involving any public offering. The recipients of the securities described in paragraphs (1), (2), (4), (5), (9) and (10) were the Registrant s employees or consultants and represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof. Appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions had adequate access, through employment, business or other relationships, to information about the Registrant.

All purchasers of securities in transactions exempt from registration pursuant to Section 4(a)(2) of the Securities Act represented to the Registrant that they were accredited investors and were acquiring the shares 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 the registration requirements of the Securities Act.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. The certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the applicable securities have not been registered and reciting the applicable restrictions on transfer. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

(a) Exhibits. The following exhibits are filed herewith or incorporated herein by reference:

Exhibit Number	Description	Registrant s Form	Date Filed with the SEC	Exhibit Number
1.1+	Form of Underwriting Agreement.			
3.1	Amended and Restated Certificate of Incorporation.	S-1/A	7/1/2014	3.3
3.2	Amendment to Certificate of Incorporation.	S-1/A	9/2/2014	3.5
3.3	Amended and Restated Bylaws.	S-1/A	7/1/2014	3.4
4.1	Form of Common Stock Certificate.	S-1/A	7/1/2014	4.1
4.2	Form of Common Stock Purchase Warrant issued by Viking Therapeutics, Inc. to Laidlaw & Company (UK) Ltd.	S-1/A	4/10/2015	4.2
5.1+	Opinion of Paul Hastings LLP.			
10.1#	Form of Indemnification Agreement between Viking Therapeutics, Inc. and its directors and executive officers.	S-1/A	7/1/2014	10.1
10.2#	2014 Equity Incentive Plan.	S-1/A	3/2/2015	10.2

10.3#	Form of Stock Option Award Agreement (2014 Equity Incentive Plan).	S-1/A	7/1/2014	10.3
10.4#	Form of Restricted Stock Unit Award Agreement (2014 Equity Incentive Plan).	S-1/A	7/1/2014	10.4
10.5#	Form of Restricted Stock Award Agreement (2014 Equity Incentive Plan).	S-1/A	9/2/2014	10.23

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10.6#	Form of Stock Appreciation Rights Award Agreement (2014 Equity Incentive Plan).	S-1/A	7/1/2014	10.5
10.7#	2014 Employee Stock Purchase Plan.	S-1/A	3/2/2015	10.22
10.8#*	Amendment No. 1 to 2014 Employee Stock Purchase Plan.			
10.9#	Employment Agreement, effective as of June 2, 2014, by and between Viking Therapeutics, Inc. and Brian Lian, Ph.D.	S-1/A	9/2/2014	10.6
10.10#	Employment Agreement, effective as of May 21, 2014, by and between Viking Therapeutics, Inc. and Michael Morneau.	S-1/A	9/2/2014	10.7
10.11#	Amendment to Employment Agreement, effective as of September 30, 2014, by and between Viking Therapeutics, Inc. and Michael Morneau.	S-1/A	3/2/2015	10.26
10.12#	Employment Agreement, effective as of June 2, 2014, by and between Viking Therapeutics, Inc. and Michael Dinerman, M.D.	S-1/A	9/2/2014	10.8
10.13#	Amendment to Employment Agreement, effective as of September 30, 2014, by and between Viking Therapeutics, Inc. and Michael Dinerman, M.D.	S-1/A	3/2/2015	10.27
10.14#	Employment Agreement, effective as of June 2, 2014, by and between Viking Therapeutics, Inc. and Rochelle Hanley, M.D.	S-/1A	9/2/2014	10.9
10.15#	Amendment to Employment Agreement, effective as of September 30, 2014, by and between Viking Therapeutics, Inc. and Rochelle Hanley, M.D.	S-1/A	3/2/2015	10.28
10.16#*	Non-Employee Director Compensation Policy.			
10.17	Master License Agreement, dated May 21, 2014, by and among Viking Therapeutics, Inc., Ligand Pharmaceuticals Incorporated and Metabasis Therapeutics, Inc.	S-1/A	7/1/2014	10.12
10.18	First Amendment to Master License Agreement, dated September 6, 2014, by and among Viking Therapeutics, Inc., Ligand Pharmaceuticals Incorporated and Metabasis Therapeutics, Inc.	S-1/A	9/8/2014	10.24
10.19	Second Amendment to Master License Agreement, dated April 8, 2015, by and among Viking Therapeutics, Inc., Ligand Pharmaceuticals Incorporated and Metabasis Therapeutics, Inc.	S-1/A	4/10/2015	10.30
10.20	Loan and Security Agreement, dated May 21, 2014, by and between Viking Therapeutics, Inc. and Ligand Pharmaceuticals Incorporated.	S-1/A	7/1/2014	10.13
10.21	First Amendment to Loan and Security Agreement, dated April 8, 2015, by and between Viking Therapeutics, Inc. and Ligand Pharmaceuticals Incorporated.	S-1/A	4/10/2015	10.31

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10.22	Convertible Note, dated May 27, 2014, issued by Viking Therapeutics, Inc. to Ligand Pharmaceuticals Incorporated.	S-1/A	7/1/2014	10.14
10.23	Letter Agreement regarding board composition and management rights, dated May 21, 2014, by and between Viking Therapeutics, Inc. and Ligand Pharmaceuticals Incorporated.	S-1/A	7/1/2014	10.15
10.24	Registration Rights Agreement, dated May 21, 2014, by and among Viking Therapeutics, Inc., Metabasis Therapeutics, Inc. and Ligand Pharmaceuticals Incorporated.	S-1/A	7/1/2014	10.16
10.25	Voting Agreement, dated May 21, 2014, by and among Viking Therapeutics, Inc., Ligand Pharmaceuticals Incorporated, Metabasis Therapeutics, Inc., Brian Lian, Ph.D. and Michael Dinerman, M.D.	S-1/A	7/1/2014	10.17
10.26#	Founder Common Stock Purchase Agreement, dated September 26, 2012, by and between Viking Therapeutics, Inc. and Brian Lian, Ph.D.	S-1/A	7/1/2014	10.18
10.27#	Amendment No. 1 to Founder Common Stock Purchase Agreement, dated May 4, 2015, by and between Viking Therapeutics, Inc. and Brian Lian, Ph.D.	10-Q	6/12/2015	10.2
10.28#	Founder Common Stock Purchase Agreement, dated September 26, 2012, by and between Viking Therapeutics, Inc. and Michael Dinerman, M.D.	S-1/A	7/1/2014	10.19
10.29#	Amendment No. 1 to Founder Common Stock Purchase Agreement, dated May 4, 2015, by and between Viking Therapeutics, Inc. and Michael Dinerman, M.D.	10-Q	6/12/2015	10.3
10.30#	Common Stock Purchase Agreement, dated April 15, 2013, by and between Viking Therapeutics, Inc. and Rochelle Hanley, M.D.	S-1/A	7/1/2014	10.20
10.31#	Amendment No. 1 to Common Stock Purchase Agreement, dated May 4, 2015, by and between Viking Therapeutics, Inc. and Rochelle Hanley, M.D.	10-Q	6/12/2015	10.4
10.32#	Common Stock Purchase Agreement, dated February 20, 2014, by and between Viking Therapeutics, Inc. and Brian Lian, Ph.D.	S-1/A	7/1/2014	10.21
10.33#	Amendment No. 1 to Common Stock Purchase Agreement, dated May 4, 2015, by and between Viking Therapeutics, Inc. and Brian Lian, Ph.D.	10-Q	6/12/2015	10.5
10.34#	Stock Repurchase Agreement, dated September 6, 2014, by and among Viking Therapeutics, Inc., Brian Lian, Ph.D., Michael Dinerman, M.D., Isabelle Dinerman and Rochelle Hanley, M.D.	S-1/A	9/8/2014	10.25
10.35#	Amended and Restated Stock Repurchase Agreement, dated April 28, 2015, by and among Viking Therapeutics, Inc., Brian Lian, Ph.D., Michael Dinerman, M.D., Isabelle Dinerman and Rochelle Hanley, M.D.	10-Q	6/12/2015	10.1

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10.36	Research Services Agreement, dated January 27, 2015, by and between Viking Therapeutics, Inc. and Academisch Medisch Centrum.	S-1/A	4/10/2015	10.29
10.37	Sublease between Fish & Richardson P.C. and the Registrant dated July 7, 2015.	10-Q	11/5/2015	10.1
16.1	Letter from MaloneBailey LLP, dated July 1, 2014.	S-1/A	7/1/2014	16.1
23.1*	Consent of Marcum LLP, Independent Registered Public Accounting Firm.			
23.2+	Consent of Paul Hastings LLP (included in Exhibit 5.1).			
24.1*	Power of Attorney (included on the signature page to this Registration Statement).			

* Filed herewith.
\+ To be filed by amendment.
\# Indicates compensatory plan or arrangement.
Confidential treatment has been granted with respect to certain portions of this exhibit, which portions have been omitted and filed separately with the Securities and Exchange Commission.

(b) Financial Statement Schedules. All financial statement schedules are omitted because they are not applicable, the required information is not present in amounts sufficient to require submission of such schedules or the information is included in the Registrant s financial statements or notes thereto.

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 of 1933 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 of 1933 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 of 1933 and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(a) For purposes of determining any liability under the Securities Act of 1933, 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.

(b) For the purpose of determining any liability under the Securities Act of 1933, 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 this offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on November 23, 2015.

VIKING THERAPEUTICS, INC.

By: /s/ Brian Lian, Ph.D.
Brian Lian, Ph.D.
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Brian Lian, Ph.D. and Michael Morneau, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign the Registration Statement on Form S-1 of Viking Therapeutics, Inc., and any or all amendments (including post-effective amendments) thereto and any new registration statement with respect to the offering contemplated thereby filed pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises hereby ratifying and confirming all that said attorneys-in-fact and agents, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Brian Lian, Ph.D. Brian Lian, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	November 23, 2015
/s/ Michael Morneau Michael Morneau	Chief Financial Officer (Principal Accounting and Financial Officer)	November 23, 2015
Lawson Macartney, DVM, Ph.D.	Director	November 23, 2015
/s/ Matthew W. Foehr	Director	November 23, 2015

Matthew W. Foehr		
/s/ Matthew Singleton	Director	November 23, 2015
Matthew Singleton		
/s/ Stephen W. Webster	Director	November 23, 2015
Stephen W. Webster		

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\+ To be filed by amendment.
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Confidential treatment has been granted with respect to certain portions of this exhibit, which portions have been omitted and filed separately with the Securities and Exchange Commission.