

Versartis, Inc.  
Form S-1/A  
March 19, 2014  
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As filed with the Securities and Exchange Commission on March 19, 2014

Registration No. 333-193997

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**Amendment No. 3 to**  
**FORM S-1**  
**REGISTRATION STATEMENT**  
*UNDER THE SECURITIES ACT OF 1933*

**Versartis, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2834**  
(Primary Standard Industrial  
Classification Code Number)  
**275 Shoreline Drive, Suite 450**

**Redwood City, California 94065**

**(650) 963-8580**

**26-4106690**  
(I.R.S. Employer  
Identification Number)

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

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**Jeffrey L. Cleland, Ph.D.**

**Chief Executive Officer and Co-founder**

**Versartis, Inc.**

**275 Shoreline Drive, Suite 450**

**Redwood City, California 94065**

**(650) 963-8580**

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

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**(415) 693-2000**

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

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

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

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

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

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

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Large accelerated filer ☐

Non-accelerated filer ☒ (Do not check if a smaller reporting company)

Accelerated filer ☐

Smaller reporting company ☐

## CALCULATION OF REGISTRATION FEE

| Title of Each Class of                     | Amount           | Proposed             |                                    | Amount of           |
|--|------------------|----------------------|------------------------------------|---------------------|
|  |                  | Maximum              | Proposed                           |                     |
| Securities to be Registered                | Registered(1)    | Aggregate            | Maximum                            | Registration Fee(3) |
| Common Stock, \$0.0001 par value per share | 6,900,000 shares | Per Share<br>\$21.00 | Offering Price(2)<br>\$144,900,000 | \$18,664            |

(1) Includes an additional 900,000 shares that the underwriters have the option to purchase.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(a) under the Securities Act of 1933, as amended.

(3) The Registrant previously paid \$10,304 of this amount in connection with the initial filing of this Registration Statement and \$2,642 in connection with the filing of Amendment No. 2 to this Registration Statement.

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

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The information in this preliminary 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 preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

**Subject to completion, dated March 19, 2014**

**6,000,000 Shares**

**Common Stock**

This is the initial public offering of shares of common stock of Versartis, Inc.

We are offering 6,000,000 shares of our common stock. Prior to this offering, there has been no public market for our common stock. It is currently estimated that the initial public offering price per share will be between \$19.00 and \$21.00. Our common stock has been approved for listing on The NASDAQ Global Select Market under the trading symbol VSAR.

We are an emerging growth company under the federal securities laws and, as such, may elect to comply with certain reduced public company reporting requirements for future filings.

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

|   | <b>Per Share</b> | <b>Total</b> |
|---|------------------|--------------|
| Initial public offering price                         | \$               | \$           |
| Underwriting discounts and commissions <sup>(1)</sup> | \$               | \$           |
| Proceeds, before expenses, to Versartis               | \$               | \$           |

(1) See Underwriting for additional disclosure regarding underwriting discounts, commissions and expenses.

To the extent that the underwriters sell more than 6,000,000 shares of common stock, the underwriters have an option to purchase up to an additional 900,000 shares from us at the initial public offering price, after deducting underwriting discounts and commissions.

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The underwriters expect to deliver the shares against payment in New York, New York on \_\_\_\_\_, 2014.

Neither the Securities and Exchange Commission nor any state securities commission 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.

**Morgan Stanley**

**Citigroup**

**Cowen and Company**

**Canaccord Genuity**

, 2014

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Neither we nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is accurate only as of its date regardless of the time of delivery of this prospectus or of any sale of common stock.

Neither we nor the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons who come into possession of this prospectus and any free writing prospectus related to this offering in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus and any such free writing prospectus applicable to that jurisdiction.

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### **Prospectus summary**

*This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before deciding to invest in our common stock, you should read this entire prospectus carefully, including the sections of this prospectus entitled **Risk factors** and **Management's discussion and analysis of financial condition and results of operations** and our financial statements and related notes contained elsewhere in this prospectus. Unless the context otherwise requires, references in this prospectus to the company, Versartis, we, us and our refer to Versartis, Inc.*

#### **Versartis, Inc.**

We are an endocrine-focused biopharmaceutical company initially developing our novel long-acting recombinant human growth hormone, VRS-317, for growth hormone deficiency, or GHD, an orphan disease. A key limitation to current recombinant human growth hormone, or rhGH, products is that they impose the burden of daily injections over multiple years, often resulting in poor compliance, which in turn can lead to suboptimal treatment outcomes in GHD patients. Despite this limitation, global annual sales from currently marketed rhGH products have grown approximately 6% per year over the last five years, reaching over \$3 billion in 2012. VRS-317 is intended to reduce the burden of daily treatment by requiring significantly fewer injections, potentially improving compliance and, therefore, treatment outcomes. Our first targeted indication for VRS-317 is pediatric GHD, which represents an approximately \$1.5 billion existing market opportunity. We are currently conducting the Phase 2a stage of our pediatric GHD clinical trial in which we are evaluating weekly, semi-monthly and monthly dosing regimens. We may develop VRS-317 for adult GHD, idiopathic short stature, or ISS, which is short stature of unknown cause, and Turner Syndrome, which is an X-chromosomal deficit or deletion in females. Adult GHD, ISS and Turner Syndrome together account for approximately 30% of the global rhGH market. We have global rights to VRS-317 and, if VRS-317 is approved, given the highly concentrated prescriber base, we intend to commercialize it with our own specialty sales force in the United States and Canada, and potentially other geographies.

#### **Growth hormone deficiency**

GHD is a chronic disease with multiple causes that affects two distinct patient groups, pediatric patients and adult patients, although rhGH treatment options for the two groups are the same. Children with GHD typically have pathologic degrees of short stature, a tendency toward obesity, delayed and deficient mineralization of the skeleton, impaired growth of skeletal muscle and development of a high risk lipid profile. GHD during adulthood manifests as alterations in body composition, such as decreased lean and increased fat mass with skeletal demineralization, and causes adverse changes in cardiovascular outcome markers. Patients with untreated GHD also face increased mortality.

The current standard of care for GHD is daily subcutaneous, or under the skin, injections of rhGH, and there are currently seven rhGH products marketed in the United States for the treatment of GHD. In therapy-compliant GHD children, rhGH therapy initially promotes catch-up growth, enabling patients to approach or achieve heights on a standard growth curve, and thereafter permits them to maintain normal growth throughout the course of treatment. In therapy-compliant GHD adults, daily subcutaneous injections of rhGH have resulted in improvements in body composition parameters, bone density, cardiovascular outcomes and quality of life.

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Despite the demonstrated benefits of rhGH therapy, published studies have shown that a majority of patients on a daily rhGH regimen, which requires up to 365 injections per year, are not fully compliant and fail to achieve expected treatment outcomes. For example, significant reductions in the degree of growth in pediatric GHD patients have been observed as a result of missing as few as two injections per week. As a result, pediatric endocrinologists have consistently sought a long-acting rhGH therapy to reduce the treatment burden on patients and their caregivers without compromising safety or efficacy. Importantly, other rhGH manufacturers have attempted to develop a long-acting rhGH product using microsphere, PEGylation, fusion and alternative delivery technologies. Each of these approaches has not been successful due to regulatory, safety, efficacy or manufacturing issues, or a combination thereof.

### **Our product candidate: VRS-317**

We believe our product candidate, VRS-317, will fulfill this significant need for a long-acting rhGH product. VRS-317, which is a new chemical entity, combines the same rhGH amino acid sequence utilized in currently approved rhGH products with a proprietary in-licensed half-life extension technology, XTEN, to enable less frequent administration. VRS-317 was engineered using XTEN technology to extend the residence time in the bloodstream by reducing the clearance of rhGH from the body by the two primary mechanisms, kidney filtration and receptor mediated clearance.

In our Phase 1a clinical trial, VRS-317 has demonstrated a half-life at least thirty times longer than daily rhGH and to date has shown a safety and tolerability profile comparable to that of marketed daily rhGH products. Additionally, the XTEN amino acid sequences fused to rhGH to form VRS-317 confer improved pharmaceutical properties compared to rhGH alone, including greater solubility, a lower isoelectric point and a higher net negative charge. These improved properties enable a straightforward purification process without the need for complex steps that can reduce manufacturing yields, such as protein folding, which may ultimately offer a cost-of-goods advantage for VRS-317 versus current rhGH products.

There are currently seven rhGH products marketed in the United States for the treatment of GHD. We are pursuing the same regulatory pathway for VRS-317 followed by most of these products for pediatric GHD patients: a dose-finding study and a Phase 3 registration trial with a primary endpoint of twelve month mean height velocity. Mean height velocity refers to the mean height change of the individuals in a treatment group over a specified time period. We are currently conducting and have completed enrollment in the Phase 2a stage of our Phase 1b/2a pediatric GHD clinical trial, which we designed to evaluate weekly, semi-monthly and monthly dosing of VRS-317. In the completed Phase 1b portion of this clinical trial, we selected insulin-like growth factor-I, or IGF-I, which is a commonly used marker, as the primary pharmacodynamic marker to measure the effect of VRS-317 treatment. All subjects had relative IGF-I deficiency at baseline, and the increase from baseline in the 30 day average IGF-I standard deviation score was proportional to dose. The primary efficacy endpoint in the ongoing Phase 2a stage of this trial is six month mean height velocity, and we expect to have complete six month mean height velocity data by June 2014. At VRS-317 doses equivalent to daily rhGH of approximately 30 µg rhGH/kg/day, repeat dosing of VRS-317 in the Phase 2a stage of the study to date has been found to be safe and well tolerated in pre-pubertal GHD children and to maintain mean IGF-I increases over baseline and within the therapeutic range without IGF-I overexposure when given at weekly, semi-monthly and monthly intervals. Although not necessarily

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indicative of the final results in the trial, results to date in the Phase 2a stage of the Phase 1b/2a clinical trial of VRS-317 in GHD children suggest that VRS-317 has a comparable safety and efficacy profile to historical studies of daily rhGH administered at comparable doses. We also are conducting an extension trial to allow patients in the Phase 2a stage to continue to receive VRS-317, enabling determination of twelve month mean height velocity data prior to the initiation of our planned Phase 3 clinical trial and providing long-term data to support the filing of our New Drug Application. Growth

data from published studies of approved rhGH therapy products suggest that three, six and twelve month mean height velocities within the same cohort are well correlated within the same clinical trial. We believe this correlation is attributable to the fact that an individual's growth during a three month period represents a portion of that individual's growth during any longer subsequent period such as an additional three or nine months. In Phase 3 clinical trials of approved rhGH products, the mean height velocity in a cohort at twelve months was generally the primary endpoint used for approval of the dose used in the cohort.

### **Market opportunity**

Global annual sales from currently marketed rhGH products, which are used for the treatment of GHD as well as other related indications, have grown approximately 6% per year over the last five years, reaching over \$3 billion in 2012. Based on market research, we believe that the market for daily rhGH products is likely to grow to over \$4 billion by 2018. We believe that VRS-317, if approved, would not only take significant market share versus current daily rhGH products, but would further expand the overall rhGH market due to its greater convenience of administration.

Our first targeted indication for VRS-317 is pediatric GHD, which represents an approximately \$1.5 billion existing market opportunity. The available data from the United States and European Union consistently estimate the prevalence of GHD in children as just below 3 per 10,000. We believe the United States and European daily rhGH markets for pediatric GHD are currently approximately \$450 million and \$550 million, respectively, with the Japanese market comprising approximately \$450 million in annual revenues. In Japan specifically, VRS-317 has the potential to be further differentiated on efficacy compared to the efficacy achieved by the lower dose of daily rhGH approved in Japan for the treatment of pediatric GHD.

We may develop VRS-317 for one or more of the additional indications for which daily rhGH products are currently approved, including adult GHD, ISS and Turner Syndrome. We believe the adult GHD market is currently underpenetrated, yet it reached approximately \$450 million in revenues globally in 2012. We have completed a Phase 1a clinical trial in adult GHD patients that supports the potential for monthly dosing of VRS-317. Adult GHD, ISS and Turner Syndrome represent approximately 30% of the global rhGH market.

### **Our strategy**

Our goal is to become a leading biopharmaceutical company focused on developing and commercializing therapeutics for the treatment of endocrine disorders. The key elements of our strategy are to:

complete the clinical development of and seek regulatory approval for VRS-317 for the treatment of GHD in children;

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commercialize VRS-317 independently in the United States with a specialty sales force, and identify a commercialization strategy in Europe to maximize our returns;

evaluate, either independently or in collaboration with third parties, the potential for VRS-317 to demonstrate superior efficacy versus daily rhGH in Japanese children; and

explore the use of VRS-317 in adult GHD, ISS and Turner Syndrome.

### **Our management team**

We are led by a team of experienced biotechnology industry executives and recognized experts in the treatment of GHD who bring significant capabilities in the development and commercialization of a novel long-acting rhGH therapy. Our management team is led by our co-founder and Chief Executive Officer, Jeffrey L. Cleland, Ph.D. Dr. Cleland led the development of the only FDA-approved long-acting rhGH product, Nutropin Depot®, while at Genentech, Inc., or Genentech. Our financial team is led by our Chief Financial Officer, Joshua T. Brumm, who has previously led finance teams for both emerging growth biotechnology and medical device companies, including Pharmacyclics, Inc. and ZELTIQ Aesthetics, Inc. Mr. Brumm has extensive commercial and operating experience in addition to having completed a number of financial and strategic transactions. Our clinical team is led by George Bright, M.D., Vice President of Medical Affairs, and Eric Humphriss, M.B.A., Vice President of Clinical Operations. Dr. Bright, a pediatric endocrinologist, has been treating children with GHD for more than 35 years and was a leader in the development of a daily rhGH product, Norditropin®, and a product for the treatment of IGF-I deficiency, Increlex®. Mr. Humphriss managed Genentech's pediatric GHD registry. Our manufacturing team is led by Patrick Murphy, who headed the team that manufactured the first rhGH product, Protropin®, while at Genentech.

### **Risks associated with our business**

Our business is subject to numerous risks and uncertainties related to our financial condition and need for additional capital, the development and commercialization of our only product candidate, VRS-317, our reliance on third parties, the operation of our business, our intellectual property, government regulation and this offering and ownership of our common stock. These risks include those highlighted in the section entitled "Risk factors" immediately following this prospectus summary, including the following:

Our success depends heavily on the successful development, regulatory approval and commercialization of our only product candidate, VRS-317.

VRS-317 is a new chemical entity, and although it contains the same rhGH composition used in currently approved rhGH products, it has been genetically modified to extend its half-life, creating uncertainty about its long-term safety profile.

Because the results of preclinical testing and earlier clinical trials and the results to date in the ongoing Phase 2a stage of our Phase 1b/2a clinical trial are not necessarily predictive of future results, VRS-317 may not have favorable results in later clinical trials or receive regulatory approval.

Long-acting rhGH products and product candidates no longer in development or marketed have failed to generate commercial success or obtain regulatory approval, and we cannot predict whether VRS-317 will achieve success where others have failed.

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Delays in the enrollment of patients in any of our clinical studies could increase our development costs and delay completion of the study.

If clinical studies of VRS-317 and any future product candidates fail to demonstrate safety and efficacy to the satisfaction of the FDA or similar regulatory authorities outside the United States or do not otherwise produce positive results, we may incur additional costs, experience delays in completing or ultimately fail in completing the development and commercialization of VRS-317 or our future product candidates.

VRS-317 or our future product candidates may cause serious adverse side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label or result in significant negative consequences following any marketing approval.

Even if our clinical trials demonstrate acceptable safety and efficacy of VRS-317 for growth in pediatric GHD patients based on a weekly, semi-monthly or monthly dosing regimen, the FDA or similar regulatory authorities outside the United States may not approve VRS-317 for marketing or may approve it with restrictions on the label, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Even if VRS-317 or any future product candidates receive regulatory approval, they may fail to achieve the degree of market acceptance by physicians, patients, caregivers, healthcare payors and others in the medical community necessary for commercial success.

VRS-317 has never been manufactured on a commercial scale, and there are risks associated with scaling up manufacturing to commercial scale. We have recently transferred our production of VRS-317 to a new manufacturer, which may not be successful, and this could delay regulatory approval and commercialization of VRS-317.

We license substantially all of the intellectual property relating to VRS-317 from Amunix Operating, Inc., or Amunix, and the loss of our license agreement with Amunix would prevent or otherwise materially adversely affect our ability to proceed with any development or potential commercialization of VRS-317.

We will need additional funds to support our operations, and such funding may not be available to us on acceptable terms, or at all, which would force us to delay, reduce or suspend our research and development programs and other operations or commercialization efforts. Raising additional capital may subject us to unfavorable terms, cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product candidates and technologies.

## **Corporate information**

We were incorporated in Delaware in December 2008. Our principal executive offices are located at 275 Shoreline Drive, Suite 450, Redwood City, California 94065, and our telephone number is (650) 963-8580. Our website address is [www.versartis.com](http://www.versartis.com). The information contained on our website is not incorporated by reference into this prospectus, and you should not consider any information contained on, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our common stock.

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We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012. As such, we are eligible for exemptions from various reporting requirements 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 and reduced disclosure obligations regarding executive compensation. We will remain an emerging growth company until the earlier of (1) December 31, 2019, (2) the last day of the fiscal year (a) in which we have total annual gross revenue of at least \$1.0 billion or (b) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (3) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period.

Versartis, our logo and other trade names, trademarks and service marks of Versartis appearing in this prospectus are the property of Versartis. Other trade names, trademarks and service marks appearing in this prospectus are the property of their respective holders.

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**The offering**

**Common stock offered by Versartis** 6,000,000 shares

**Common stock to be outstanding immediately after this offering** 23,262,323 shares

**Underwriters' option** The underwriters have an option to purchase up to 900,000 additional shares of common stock from us as described in "Underwriting."

**Use of proceeds** The net proceeds from the issuance of our common stock in this offering will be approximately \$109.2 million, or approximately \$126.0 million if the underwriters exercise their option to purchase additional shares in full, assuming an initial public offering price of \$20.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use approximately \$65.0 million of the net proceeds from this offering, along with our other capital resources, to fund our ongoing and planned clinical development of VRS-317, and the balance to fund working capital, capital expenditures and other general corporate purposes, which may include the acquisition or licensing of other products, businesses or technologies. See "Use of proceeds" for additional information.

**Risk factors** See "Risk factors" beginning on page 11 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.

**NASDAQ Global Select Market symbol** VSAR

The number of shares of our common stock to be outstanding after this offering is based on (i) 11,877,359 shares of our common stock outstanding as of December 31, 2013, which assumes the net exercise of all warrants and the conversion of all shares of convertible preferred stock, including those shares issued upon the exercise of the warrants, then outstanding, and (ii) an additional 5,384,964 shares of our common stock issuable upon conversion of shares of our convertible preferred stock issued in February 2014, and excludes the following:

1,403,655 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2013 at a weighted-average exercise price of \$1.90 per share;

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537,194 shares of our common stock issuable upon the exercise of stock options granted after December 31, 2013 with a weighted average exercise price of \$8.09 per share;

4,100,255 shares of common stock, subject to increase on an annual basis, reserved for future issuance under our 2014 Equity Incentive Plan, or our 2014 Plan, which will become effective in connection with the completion of this offering, consisting of:

1,695,692 shares of common stock reserved for future grant or issuance under our 2014 Plan, which will become effective in connection with the completion of this offering, approximately 255,000 of which will be subject to stock options that we plan to grant concurrently with this offering, which options will have an exercise price equal to the price to the public in this offering;

470,521 shares of common stock reserved for future issuance under our 2009 Stock Plan, which shares will be added to the shares of common stock to be reserved under our 2014 Plan upon its effectiveness; and

an additional number of shares subject to awards outstanding under the 2009 Stock Plan that expire, terminate or are forfeited; and

150,000 shares of our common stock, subject to increase on an annual basis, reserved for future issuance under our 2014 Employee Stock Purchase Plan.

On March 3, 2014, our board of directors approved a 1-for-11.5 reverse split of our common stock. The reverse stock split became effective on March 6, 2014. Upon the effectiveness of the reverse stock split, (i) every 11.5 shares of outstanding common stock was decreased to one share of common stock, (ii) the number of shares of common stock for which each outstanding option to purchase common stock is exercisable was proportionally decreased on a 1-for-11.5 basis, (iii) the exercise price of each outstanding option to purchase common stock was proportionately increased on a 1-for-11.5 basis, and (iv) the conversion ratio for each share of outstanding preferred stock into common stock was proportionately reduced on a 1-for-11.5 basis. All of the share numbers, share prices, and exercise prices have been adjusted within the registration statement to which this prospectus relates, on a retroactive basis, to reflect this 1-for-11.5 reverse stock split, as applicable.

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

the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 15,876,104 shares of our common stock immediately prior to the closing of this offering;

the automatic net exercise of all outstanding warrants to purchase shares of our convertible preferred stock, based on the midpoint of the price range set forth on the cover page of this prospectus, and the automatic conversion of those shares into 128,908 shares of our common stock, each immediately prior to the closing of this offering;

the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the closing of this offering; and

no exercise of the underwriters' option to purchase an additional 900,000 shares of our common stock.



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The following tables summarize our financial data and should be read together with the sections in this prospectus entitled "Selected financial data" and "Management's discussion and analysis of financial condition and results of operations" and our financial statements and related notes included elsewhere in this prospectus.

We have derived the statement of operations data for the years ended December 31, 2012 and 2013 and the balance sheet data as of December 31, 2012 and 2013 from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that should be expected in the future.

|  | Year Ended<br>December 31,                         |             | Period from<br>December 10,<br>2008 (Date of<br>Inception) to<br>December 31,<br>2013 |
|--|--|-------------|---|
|  | 2012   | 2013        |   |
|  | (in thousands, except share<br>and per share data) |             |   |
| Statement of Operations Data:  |  |             |   |
| Operating expenses:  |  |             |   |
| Research and development   | \$ 10,963  | \$ 14,855   | \$ 45,873   |
| General and administrative   | 1,936  | 4,428       | 10,141  |
| Total operating expenses   | 12,899   | 19,283      | 56,014  |
| Loss from operations   | (12,899)   | (19,283)    | (56,014)  |
| Interest income  |  | 1           | 3   |
| Interest expense   | (393)  | (128)       | (863)   |
| Other income (expense), net  | 75   | 913         | 2,030   |
| Net loss and comprehensive loss  | (13,217)   | (18,497)    | (54,844)  |
| Accretion of Series A convertible preferred stock to redemption value, net of extinguishment             |  |             | 1,098   |
| Net loss attributable to common stockholders   | \$ (13,217)  | \$ (18,497) | \$ (53,746)   |
| Net loss per common share, basic and diluted <sup>(1)</sup>  | \$ (114.71)  | \$ (41.10)  |   |
| Shares used to compute net loss per common share, basic and diluted <sup>(1)</sup>                       | 115,219  | 450,000     |   |
| Pro forma net loss per common share, basic and diluted <sup>(1)</sup> (unaudited)                        |  | \$ (1.99)   |   |
| Shares used to compute pro forma net loss per common share, basic and diluted <sup>(1)</sup> (unaudited) |  | 9,698,363   |   |

- (1) See Note 2 and Note 15 to our financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma net loss per share, basic and diluted, and the number of shares used in the computation of the per share amounts, which does not include any shares issued subsequent to December 31, 2013. The pro forma net loss per share, basic and diluted, also does not reflect the impact of the beneficial conversion feature on shares of convertible preferred stock issued during the three months ending March 31, 2014, which will have the effect of increasing our net loss per common share for the three months ending March 31, 2014.



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|   | As of<br>December 31, |           | As of<br>December 31, 2013                 |  |
|---|-----------------------|-----------|--|--|
|   | 2012                  | 2013      | Pro<br>Forma <sup>(1)</sup><br>(unaudited) | Pro Forma<br>As<br>Adjusted <sup>(2)(3)</sup><br>(unaudited) |
|   | (in thousands)        |           |  |  |
| <b>Balance Sheet Data:</b>                        |                       |           |  |  |
| Cash and cash equivalents                         | \$ 329                | \$ 13,213 | \$ 78,213                                  | \$ 187,437   |
| Working capital (deficit)                         | (4,745)               | 10,283    | 75,283                                     | 184,507  |
| Total assets                                      | 2,189                 | 14,683    | 79,683                                     | 188,907  |
| Convertible notes payable                         | 4,460                 |           |  |  |
| Convertible preferred stock warrant liability     | 433                   | 474       |  |  |
| Convertible preferred stock call option liability |                       | 21        |  |  |
| Convertible preferred stock                       | 29,647                | 57,497    |  |  |
| Deficit accumulated during the development stage  | (35,249)              | (53,746)  | (55,184)                                   | (55,184)   |
| Total stockholders' (deficit) equity              | (34,742)              | (47,292)  | 75,700                                     | 184,924  |

- (1) The pro forma column reflects (1) the filing of our amended and restated certificate of incorporation and the automatic conversion of outstanding shares of our convertible preferred stock as of December 31, 2013 into an aggregate of 10,491,140 shares of common stock immediately prior to the closing of this offering; (2) the issuance of shares of Series D-2 convertible preferred stock in February 2014 and automatic conversion of those shares into 1,145,070 shares of common stock as if they had occurred as of December 31, 2013, the receipt of approximately \$10.0 million of gross proceeds from such sale and the related beneficial conversion feature on the Series D-2 convertible preferred stock; (3) the issuance of shares of Series E convertible preferred stock in February 2014 and automatic conversion of those shares into 4,239,894 shares of common stock as if they had occurred as of December 31, 2013, the receipt of approximately \$55.0 million of gross proceeds from such sale and the related beneficial conversion feature on the Series E convertible preferred stock; and (4) the net exercise of warrants to purchase convertible preferred stock into shares of convertible preferred stock, the automatic conversion of such shares into common stock and the related reclassification of the convertible preferred warrant liability and convertible preferred stock call option liability to additional paid-in capital. We have based our assumption regarding the conversion of preferred stock into common stock immediately prior to the closing of this offering on stockholder consents we have obtained approving the conversion so long as net proceeds of this offering exceed \$50 million and our anticipation that net proceeds from this offering will be in excess of \$50 million.
- (2) The pro forma as adjusted column reflects the pro forma adjustments described in footnote (1) above and the sale by us of 6,000,000 shares of common stock in this offering at an assumed initial public offering price of \$20.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.
- (3) A \$1.00 increase (decrease) in the assumed initial public offering price of \$20.00 per share would increase (decrease) each of pro forma as adjusted cash and cash equivalents, working capital and total assets by \$5.6 million and increase (decrease) pro forma as adjusted total stockholders' equity by \$5.6 million, assuming the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 shares in the number of shares we are offering would increase (decrease) each of pro forma as adjusted cash and cash equivalents, working capital and total assets by approximately \$18.6 million and increase (decrease) pro forma as adjusted total stockholders' equity by approximately \$18.6 million, assuming the assumed initial public offering price per share, as set forth on the cover page of this prospectus, remains the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price, number of shares offered and other terms of this offering determined at pricing.

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### **Risk factors**

*Investing in our common stock involves a high degree of risk. You should consider carefully the following risks, together with all the other information in this prospectus, including our financial statements and notes thereto, before you invest in our common stock. If any of the following risks actually materializes, our operating results, financial condition and liquidity could be materially adversely affected. As a result, the trading price of our common stock could decline and you could lose part or all of your investment.*

#### **Risks related to the development and commercialization of our product candidate**

***Our success depends heavily on the successful development, regulatory approval and commercialization of our only product candidate, VRS-317.***

We do not have any products that have gained regulatory approval. Our only clinical-stage product candidate is VRS-317, a novel, long-acting recombinant human growth hormone, or rhGH, combined with a proprietary half-life extension technology referred to as XTEN. VRS-317 is currently undergoing the Phase 2a stage of a Phase 1b/2a clinical trial. As a result, our near-term prospects, including our ability to finance our operations and generate revenue, are substantially dependent on our ability to obtain regulatory approval for and, if approved, to successfully commercialize VRS-317 in a timely manner.

We cannot commercialize VRS-317 or any future product candidates in the United States without first obtaining regulatory approval for the product from the U.S. Food and Drug Administration, or FDA, nor can we commercialize VRS-317 or any future product candidates outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. The FDA review process typically takes years to complete and approval is never guaranteed. Before obtaining regulatory approvals for the commercial sale of VRS-317 for a target pediatric GHD indication or our future product candidates, we generally must demonstrate with substantial evidence gathered in preclinical and well-controlled clinical studies that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate. We are pursuing the same regulatory pathway for VRS-317 followed by most of the approved rhGH products for pediatric GHD patients: a dose-finding study and a Phase 3 registration trial with a primary endpoint of twelve month mean height velocity. It is possible, however, that because VRS-317 is a modified form of rhGH, with two amino acid tails added to extend its half-life, that we will not be able to use this typical regulatory approval process. If we have to conduct additional or different trials than prior rhGH products were required to complete, this could increase the amount of time and expense required for regulatory approval of VRS-317, if any. In addition, while the available growth data from published studies of approved rhGH therapy products suggest that three, six and twelve month mean height velocities are well correlated within the same clinical trial, it is possible that VRS-317, due to its unique properties, will produce different results. If the three and six month mean height velocities that we observe for VRS-317 in the on-going Phase 1b/2a clinical trial do not correlate to twelve month mean height velocities that we ultimately observe in any Phase 3 clinical trial that we may conduct, VRS-317 may not achieve the required primary endpoint in the Phase 3 clinical trial, and VRS-317 may not receive regulatory approval.

Moreover, obtaining regulatory approval for marketing of VRS-317 in one country does not ensure we will be able to obtain regulatory approval in other countries, while a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in other countries.

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Even if VRS-317 or any of our future product candidates were to successfully obtain approval from the FDA and comparable foreign regulatory authorities, any approval might contain significant limitations related to use restrictions for specified age groups, warnings, precautions or contraindications, or may be subject to burdensome post-approval study or risk management requirements. If we are unable to obtain regulatory approval for VRS-317 in one or more jurisdictions, or any approval contains significant limitations, we may not be able to obtain sufficient funding or generate sufficient revenue to continue to fund our operations. Also, any regulatory approval of VRS-317 or our future product candidates, once obtained, may be withdrawn. Furthermore, even if we obtain regulatory approval for VRS-317, the commercial success of VRS-317 will depend on a number of factors, including the following:

development of our own commercial organization or establishment of a commercial collaboration with a commercial infrastructure;

establishment of commercially viable pricing and obtaining approval for adequate reimbursement from third-party and government payors;

the ability of our third-party manufacturers to manufacture quantities of VRS-317 using commercially viable processes at a scale sufficient to meet anticipated demand and reduce our cost of manufacturing, and that are compliant with current Good Manufacturing Practices, or cGMP, regulations;

our success in educating physicians and patients about the benefits, administration and use of VRS-317;

the availability, perceived advantages, relative cost, relative safety and relative efficacy of alternative and competing treatments;

the effectiveness of our own or our potential strategic collaborators' marketing, sales and distribution strategy and operations;

acceptance of VRS-317 as safe and effective by patients, caregivers and the medical community;

a continued acceptable safety profile of VRS-317 following approval; and

continued compliance with our obligations in our intellectual property licenses with third parties upon favorable terms

Many of these factors are beyond our control. If we or our commercialization collaborators are unable to successfully commercialize VRS-317, we may not be able to earn sufficient revenues to continue our business.

***VRS-317 is a new chemical entity, and although it contains the same rhGH composition used in currently approved rhGH products, it has been genetically modified to extend its half-life, creating uncertainty about its long-term safety profile.***

VRS-317 utilizes the same rhGH amino acid sequence as in currently approved rhGH products, but combined with sequences of hydrophilic amino acids genetically fused to the rhGH protein to extend its half-life. This proprietary in-licensed half-life extension technology, XTEN, has been used in VRS-317 to potentially enable less frequent administration of rhGH. We have limited clinical data on product candidates utilizing XTEN technology indicating whether they are safe or effective for long-

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term treatment in humans. The long term safety and efficacy of the XTEN technology and the extended half-life and exposure profile of VRS-317 compared to currently approved rhGH products is unknown, and it is possible it may increase the risk of unforeseen reactions to VRS-317 following extended treatment relative to other currently approved rhGH products. Elevated levels of rhGH and IGF-I together can lead to acromegaly, a rare disease that occurs when the body produces excess growth hormone, leading to an increase in the size of bones and organs and which can result in disfigurement and other complications, with an associated increased cancer risk. It is unknown whether long-term repeated administration of VRS-317 could result in an increased immune response to rhGH, leading to a loss of efficacy or potential safety issues. If extended treatment with VRS-317 in our ongoing or future clinical trials results in any concerns about its safety or efficacy, we may be unable to successfully develop or commercialize VRS-317.

***Because the results of preclinical testing and earlier clinical trials and the results to date in the ongoing Phase 2a stage of our Phase 1b/2a clinical trial are not necessarily predictive of future results, VRS-317 may not have favorable results in later clinical trials or receive regulatory approval.***

Success in preclinical testing and early clinical trials does not ensure that later clinical trials will generate adequate data to demonstrate the efficacy and safety of an investigational drug. A number of companies in the pharmaceutical and biotechnology industries, including those with greater resources and experience, have suffered significant setbacks in clinical trials, even after seeing promising results in earlier clinical trials. Despite the results to date in the ongoing Phase 2a stage of our Phase 1b/2a clinical trial of VRS-317 in GHD children and the results reported in earlier trials, we do not know whether the clinical trials we are conducting, or may conduct, will demonstrate adequate efficacy and safety to result in regulatory approval to market VRS-317. Even if we believe that we have adequate data to support an application for regulatory approval to market our product candidates, the FDA, the European Medicines Agency, or EMA, or other applicable foreign regulatory authorities may not agree and may require that we conduct additional clinical trials. If our ongoing Phase 1b/2a clinical trial or later-stage clinical trials do not produce favorable results, our ability to achieve regulatory approval for VRS-317 may be adversely impacted.

There can be no assurance that VRS-317 will not exhibit new or increased safety risks in the Phase 2a stage of our clinical trial as compared to the Phase 1b stage of the trial, or, if we complete the Phase 1b/2a clinical trial, in the planned Phase 3 clinical trial. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many other companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain regulatory approval for the marketing of their products.

In addition, we have not yet established the optimal dose for VRS-317. There can be no guarantee that the doses currently being studied in the Phase 2a stage of the Phase 1b/2a clinical trial will be efficacious or, if they are, whether any one will be the optimal dose. We believe we will need to conduct additional clinical trials to evaluate additional dose levels of VRS-317. In addition, we do not yet know how frequently VRS-317, if approved, will have to be administered. Our on-going Phase 1b/2a clinical trial is evaluating weekly, semi-monthly and monthly dosing regimen. There cannot be any guarantee that any of these studies will be successful in determining a dose or dose regimen of VRS-317 suitable for marketing approval.

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***As an organization, we have never conducted a Phase 3 clinical trial or submitted an NDA before, and may be unsuccessful in doing so for VRS-317.***

We are currently conducting the Phase 2a stage of a Phase 1b/2a clinical trial and we may need to conduct additional clinical trials before initiating our planned Phase 3 clinical trial. If the Phase 2a stage of the trial is successful, we intend to independently conduct a Phase 3 clinical trial of VRS-317. The conduct of Phase 3 clinical trials and the submission of a successful NDA is a complicated process. As an organization, we have never conducted a Phase 3 clinical trial, have limited experience in preparing, submitting and prosecuting regulatory filings, and have not submitted a New Drug Application, or an NDA, before. We also have had limited interactions with the FDA and have not discussed any proposed Phase 3 clinical trial design or implementation with the FDA. Consequently, even if the Phase 2a stage of our Phase 1b/2a clinical trial is successful, we may be unable to successfully and efficiently execute and complete necessary clinical trials in a way that leads to NDA submission and approval of VRS-317. Failure to commence or complete, or delays in, our planned clinical trials would prevent us from or delay us in commercializing VRS-317.

***Long-acting rhGH products and product candidates no longer in development or marketed have failed to generate commercial success or obtain regulatory approval, and we cannot predict whether VRS-317 will achieve success where others have failed.***

Many attempts have been made to develop sustained release formulations of rhGH. For example, Nutropin Depot, a long-acting form of rhGH developed by Genentech that uses Alkermes' ProLease® injectable extended-release drug delivery system, was approved by the FDA in 1999 and withdrawn from the market in 2004 by Genentech and Alkermes due to the significant resources required to continue manufacturing and commercializing the product. Additional attempts at sustained release formulations have not yet led to globally marketed products, due to manufacturing, regulatory, efficacy and/or safety reasons. Even if we obtain all requisite regulatory approvals, no assurance can be given that VRS-317 will achieve commercial success or market adoption.

***Delays in the enrollment of patients in any of our clinical studies could increase our development costs and delay completion of the study.***

We may not be able to initiate or continue clinical studies for VRS-317 or any future product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these studies as required by the FDA or other regulatory authorities. Even if we are able to enroll a sufficient number of patients in our clinical studies, if the pace of enrollment is slower than we expect, the development costs for our product candidates may increase and the completion of our studies may be delayed or our studies could become too expensive to complete.

For example, we enrolled 48 patients in the United States over approximately eight months in the Phase 1b stage of our Phase 1b/2a clinical trial of VRS-317. The last patient was enrolled in the Phase 2a stage of the study in November 2013, and we expect the study to be completed by mid-2014. Depending on the outcome of the Phase 2a stage of the trial, we intend to begin enrollment for a Phase 3 clinical trial in the United States, Canada and the European Union. As we expect to study only treatment naïve subjects in any Phase 3 clinical trial, we will need to seek participation of additional patients in that trial. We will need to activate new clinical study sites and enroll patients at forecasted rates at both new and existing clinical study sites. Our forecasts regarding the rates of clinical site activation and patient enrollment at those sites are based on a number of assumptions including assumptions based on past experience with the Phase 1b stage of the Phase 1b/2a clinical trial. However, there can be no assurance

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that those forecasts will be accurate or that we will not face delays in commencing our planned Phase 3 clinical trial. There may be concurrent competing pediatric GHD clinical trials that will inhibit or slow our enrollment in the Phase 3 clinical trial. If we experience delays in enrollment, our ability to complete our planned Phase 3 clinical trial could be impaired and the costs of conducting the study could increase, either of which could have a material adverse effect on our business.

*If clinical studies of VRS-317 and any future product candidates fail to demonstrate safety and efficacy to the satisfaction of the FDA or similar regulatory authorities outside the United States or do not otherwise produce positive results, we may incur additional costs, experience delays in completing or ultimately fail in completing the development and commercialization of VRS-317 or our future product candidates.*

Before obtaining regulatory approval for the sale of any product candidate, we must conduct extensive clinical studies to demonstrate the safety and efficacy of our product candidates in humans. Clinical studies are expensive, difficult to design and implement, can take many years to complete and are uncertain as to outcome. A failure of one or more of our clinical studies could occur at any stage of testing.

The probability of the Phase 2a stage of our Phase 1b/2a clinical trial succeeding is highly dependent on the adequacy of its design. We have reviewed publicly available data from studies completed by other companies and incorporated the results of our analysis into the design of the Phase 2a stage of our trial, but we could have misinterpreted the data or performed a flawed analysis. Furthermore, relevant information from the studies may not be publicly available or, if available, may not have been obtained by us. As a result, there could be flaws in the design of the Phase 2a stage of our trial that could cause it to fail. For example, we may be administering VRS-317 at dose levels that are not as efficacious and/or safe as other rhGH therapies.

We may experience numerous unforeseen events during, or as a result of, clinical studies that could delay or prevent our ability to receive regulatory approval or commercialize VRS-317 or any future product candidates, including the following:

clinical studies may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical studies or abandon product development programs;

the number of patients required for clinical studies may be larger than we anticipate, enrollment in these clinical studies may be insufficient or slower than we anticipate or patients may drop out of these clinical studies at a higher rate than we anticipate;

the cost of clinical studies or the manufacturing of our product candidates may be greater than we anticipate;

our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;

we might have to suspend or terminate clinical studies of our product candidates for various reasons, including a finding that our product candidates have unanticipated serious side effects or other unexpected characteristics or that the patients are being exposed to unacceptable health risks;

regulators may not approve our proposed clinical development plans;

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regulators or institutional review boards may not authorize us or our investigators to commence a clinical study or conduct a clinical study at a prospective study site;

regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements; and

the supply or quality of our product candidates or other materials necessary to conduct clinical studies of our product candidates may be insufficient or inadequate.

If we are required to conduct additional clinical studies or other testing of VRS-317 or any future product candidates beyond those that we contemplate, if we are unable to successfully complete clinical studies or other testing, if the results of these studies or tests are not positive or are only modestly positive or if there are safety concerns, we may:

be delayed in obtaining marketing approval for our product candidates;

not obtain marketing approval at all;

obtain approval for indications that are not as broad as intended;

have the product removed from the market after obtaining marketing approval;

be subject to additional post-marketing testing requirements; or

be subject to restrictions on how the product is distributed or used.

Our product development costs will also increase if we experience delays in testing or approvals. We do not know whether any clinical studies will begin as planned, will need to be restructured or will be completed on schedule, or at all.

Significant clinical study delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do, which would impair our ability to commercialize our product candidates and harm our business and results of operations.

***VRS-317 or our future product candidates may cause serious adverse side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label or result in significant negative consequences following any marketing approval.***

Our product candidate, VRS-317, has not completed clinical development. The risk of failure of clinical development is high. It is impossible to predict when or if this or any future product candidates will prove safe enough to receive regulatory approval. Undesirable side effects caused by VRS-317 or any future product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authority.

Pediatric subjects taking VRS-317 have reported certain adverse effects, such as mild and transient injection site discomfort, headaches and sore extremities, consistent with known adverse effects of rhGH therapy. No serious side effects have been reported to date. However, we cannot assure you that side effects from VRS-317 in current or future clinical trials will continue to be mild or that



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side effects in general will not prompt the discontinued development of VRS-317 or any future product candidates. As a result of these side effects or further safety or toxicity issues that we may experience in our clinical trials in the future, we may not receive approval to market VRS-317 or any future product candidates, which could prevent us from ever generating revenue or achieving profitability. Results of our trials could reveal an unacceptably high severity or prevalence of side effects. In such an event, our trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. Any drug-related side effects could affect patient recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims. Any of these occurrences may have a material adverse effect on our business, results of operations, financial condition, cash flows and future prospects.

Additionally, if VRS-317 or any of our future product candidates receives marketing approval, and we or others later identify undesirable side effects caused by such product, a number of potentially significant negative consequences could result, including:

we may be forced to suspend the marketing of such product;

regulatory authorities may withdraw their approvals of such product;

regulatory authorities may require additional warnings on the label that could diminish the usage or otherwise limit the commercial success of such products;

the FDA or other regulatory bodies may issue safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings about such product;

the FDA may require the establishment or modification of Risk Evaluation Mitigation Strategies, or REMS, or a comparable foreign regulatory authority may require the establishment or modification of a similar strategy that may, for instance, restrict distribution of our products and impose burdensome implementation requirements on us;

we may be required to change the way the product is administered or conduct additional clinical trials;

we could be sued and held liable for harm caused to subjects or patients;

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

our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved.

***Even if our clinical trials demonstrate acceptable safety and efficacy of VRS-317 for growth in pediatric GHD patients based on a weekly, semi-monthly or monthly dosing regimen, the FDA or similar regulatory authorities outside the United States may not approve VRS-317 for marketing or may approve it with restrictions on the label, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.***

Assuming the success of our clinical trials, we anticipate seeking regulatory approval for VRS-317 in the United States, Europe and Canada for treatment of pediatric GHD patients based on weekly, semi-monthly or monthly dosing regimens. It is possible that the FDA, the EMA or Health Canada may not consider the results of our clinical trials to be sufficient for approval of VRS-317 for



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this indication. In general, the FDA suggests that sponsors complete two adequate and well-controlled clinical studies to demonstrate effectiveness because a conclusion based on two persuasive studies will be more compelling than a conclusion based on a single study. Even if we achieve favorable results in the Phase 2a stage of our Phase 1b/2a clinical trial and our planned Phase 3 clinical trial, and considering that VRS-317 is a new chemical entity, the FDA may nonetheless require that we conduct additional clinical studies, possibly using a different clinical study design.

Moreover, even if the FDA or other regulatory authorities approve VRS-317 for treatment of pediatric GHD patients based on weekly, semi-monthly or monthly dosing regimens, the approval may include additional restrictions on the label that could make VRS-317 less attractive to physicians and patients compared to other products that may be approved for broader indications, which could limit potential sales of VRS-317.

If we fail to obtain FDA or other regulatory approval of VRS-317 or if the approval is narrower than what we seek, it could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

***Even if VRS-317 or any future product candidates receive regulatory approval, they may fail to achieve the degree of market acceptance by physicians, patients, caregivers, healthcare payors and others in the medical community necessary for commercial success.***

If VRS-317 or any future product candidates receive regulatory approval, they may nonetheless fail to gain sufficient market acceptance by physicians, hospital administrators, patients, healthcare payors and others in the medical community. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including the following:

the prevalence and severity of any side effects;

their efficacy and potential advantages compared to alternative treatments;

the price we charge for our product candidates;

the willingness of physicians to change their current treatment practices;

convenience and ease of administration compared to alternative treatments;

the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;

the strength of marketing and distribution support; and

the availability of third-party coverage or reimbursement.

For example, a number of companies offer therapies for treatment of pediatric GHD patients based on a daily regimen, and physicians, patients or their families may not be willing to change their current treatment practices in favor of VRS-317 even if it is able to offer less frequent dosing. If VRS-317 or any future product candidates, if approved, do not achieve an adequate level of acceptance, we may not generate significant product revenue and we may not become profitable on a sustained basis or at all.

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***VRS-317 has never been manufactured on a commercial scale, and there are risks associated with scaling up manufacturing to commercial scale. We have recently transferred our production of VRS-317 to a new manufacturer, which may not be successful, and this could delay regulatory approval and commercialization of VRS-317.***

VRS-317 has never been manufactured on a commercial scale, and there are risks associated with scaling up manufacturing to commercial scale including, among others, cost overruns, potential problems with process scale-up, process reproducibility, stability issues, lot consistency and timely availability of raw materials. Even if we could otherwise obtain regulatory approval for VRS-317, there is no assurance that our manufacturer will be able to manufacture the approved product to specifications acceptable to the FDA or other regulatory authorities, to produce it in sufficient quantities to meet the requirements for the potential launch of the product or to meet potential future demand. For example, on February 20, 2014 the FDA notified us that it would require additional information before allowing us to use a newly manufactured lot of VRS-317 produced by our new manufacturer that we intend to use in our ongoing extension trial after our current supply of VRS-317 runs out. The FDA subsequently issued correspondence known as a partial clinical hold related exclusively to the use of material produced by this new manufacturer in which it requested additional information regarding the long-term stability of VRS-317 at 25°C and other information prior to allowing us to use the newly manufactured lot. We believe we have provided appropriate responses to the FDA's requests, including noting that VRS-317 is stored and shipped at 5°C and that the stability profile of the new manufacturing lot was comparable to or better than the original lot used in our Phase 1 clinical studies. However, if the FDA is not satisfied with our responses, we will not be able to use VRS-317 from the new manufacturer in our clinical trials, and we expect a new manufacturing lot could take two months or longer to produce and characterize. In this case, we would be able to complete the Phase 2a stage of our pediatric GHD clinical trial, but we would have only enough VRS-317 on hand to complete approximately two months of our ongoing extension trial. Depending on the length of any regulatory delay, we could have a gap in treatment during the extension trial and could lose participants in the trial, which would reduce the quantity and quality of our long-term safety data on VRS-317. In addition, prior to commencing any future clinical trials, including our planned Phase 3 clinical trial, we must validate a source of VRS-317 specific to that trial.

If our manufacturer is unable to produce sufficient quantities of the approved product for commercialization, our commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and growth prospects.

VRS-317 is a biological molecule, or biologic, rather than a small molecule chemical compound, and as a result we face special uncertainties and risks associated with scaling up manufacturing. The manufacture of biologics involves complex processes, including developing cells or cell systems to produce the biologic, growing large quantities of such cells and harvesting and purifying the biologic produced by them. As a result, the cost to manufacture biologics is generally far higher than traditional small molecule chemical compounds, and the manufacturing process is less reliable and is difficult to reproduce. VRS-317 was previously produced for us by a third-party contract manufacturer using a small-scale process that was too expensive and inefficient to support the dosages necessary for our ongoing and planned clinical trials. We have entered into an agreement with a new third-party manufacturer to develop a more efficient, larger-scale manufacturing process. However, scaling up and improving a biologic manufacturing process is a difficult and uncertain task, and we can give no assurance that we will be successful in developing and implementing this new process. Additionally, if we receive regulatory approval for VRS-317, in order to successfully commercialize VRS-317 we will

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need to manufacture quantities of VRS-317 using commercially viable processes at a scale sufficient to meet anticipated demand. Even if we are able to do so, if the therapeutically effective dosage of VRS-317 is higher than we anticipate or the obtainable sales price is lower than we anticipate, we may not be able to successfully commercialize VRS-317.

***Our failure to successfully identify, acquire, develop and commercialize additional products or product candidates could impair our ability to grow.***

Although a substantial amount of our efforts will focus on the continued clinical testing and potential approval of our most advanced product candidate, VRS-317, a key element of our long-term growth strategy is to acquire, develop and/or market additional products and product candidates. We currently have one other potential product candidate that is in the preclinical study stage, but its development is at a preliminary stage and there can be no certainty that we will choose to advance it. Research programs to identify product candidates require substantial technical, financial and human resources, whether or not any product candidates are ultimately identified. Because our internal research capabilities are limited, we may be dependent upon pharmaceutical and biotechnology companies, academic scientists and other researchers to sell or license products or technology to us. The success of this strategy depends partly upon our ability to identify, select and acquire promising pharmaceutical product candidates and products. The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates and approved products. We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses and technologies and integrate them into our current infrastructure. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. Any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to risks of failure typical of pharmaceutical product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. In addition, we cannot provide assurance that any products that we develop or approved products that we acquire will be manufactured profitably or achieve market acceptance.

***We currently have no sales or distribution personnel and only limited marketing capabilities. If we are unable to develop a sales and marketing and distribution capability on our own or through collaborations or other marketing partners, we will not be successful in commercializing VRS-317 or other future products.***

We do not have a significant sales or marketing infrastructure and have no experience in the sale, marketing or distribution of therapeutic products. To achieve commercial success for any approved product, we must either develop a sales and marketing organization or outsource these functions to third parties. If VRS-317 is approved, we intend to commercialize it with our own specialty sales force in the United States, Canada and potentially other geographies.

There are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time-consuming and could delay any product launch. If the

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commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

We also may not be successful entering into arrangements with third parties to sell and market our product candidates or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively and could damage our reputation. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

***We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.***

The development and commercialization of new therapeutic products is highly competitive. We face competition with respect to VRS-317, and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are several large pharmaceutical and biotechnology companies that currently market and sell rhGH therapies to our target patient group. These companies typically have a greater ability to reduce prices for their competing drugs in an effort to gain or retain market share and undermine the value proposition that we might otherwise be able to offer to payors. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization. Many of these competitors are attempting to develop therapeutics for our target indications.

We are developing our lead product candidate, VRS-317, for treatment of pediatric GHD patients based on a weekly, semi-monthly or monthly dosing regimen. The current standard of care for growth therapies for patients in the United States is a daily subcutaneous injection of rhGH. There are a variety of currently marketed daily rhGH therapies administered by daily subcutaneous injection and used for the treatment of GHD, principally Norditropin® (Novo Nordisk), Humatrope® (Eli Lilly), Nutropin-AQ® (Roche/Genentech), Genotropin® (Pfizer), Saizen® (Merck Serono), Tev-tropin® (Teva Pharmaceuticals), Omnitrope® (Sandoz GmbH) and Valtropin® (LG Life Science). These rhGH drugs, with the exception of Valtropin, are well-established therapies and are widely accepted by physicians, patients, caregivers, third-party payors and pharmacy benefit managers, or PBMs, as the standard of care for the treatment of GHD. Physicians, patients, third-party payors and PBMs may not accept the addition of VRS-317 to their current treatment regimens for a variety of potential reasons, including concerns about incurring potential additional costs related to VRS-317, the perception that the use of VRS-317 will be of limited additional benefit to patients, or limited long-term safety data compared to currently available rhGH treatments.

In addition to the currently approved and marketed daily rhGH therapies, there are a variety of experimental therapies that are in various stages of clinical development by companies both already participating in the rhGH market as well as potential new entrants, principally Aileron Therapeutics, Althea, Ambrx, Ascendis, Bioton S.A., Critical Pharmaceuticals, Dong-A, GeneScience, Hanmi, LG Life Science, OPKO Health, Inc. (via Prolor acquisition) and all of the existing global and regional rhGH franchises.

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Many of our competitors, including a number of large pharmaceutical companies that compete directly with us, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical study sites and patient registration for clinical studies, as well as in acquiring technologies complementary to, or necessary for, our programs.

### ***We may form strategic alliances in the future, and we may not realize the benefits of such alliances.***

We may form strategic alliances, create joint ventures or collaborations or enter into licensing arrangements with third parties that we believe will complement or augment our existing business. These relationships or those like them may require us to incur non-recurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for VRS-317 or any future product candidates and programs because our research and development pipeline may be insufficient, our product candidates and programs may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view our product candidates and programs as having the requisite potential to demonstrate safety and efficacy. If we license products or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following a strategic transaction or license, we will achieve the revenues or specific net income that justifies such transaction. Any delays in entering into new strategic partnership agreements related to our product candidates could also delay the development and commercialization of our product candidates and reduce their competitiveness even if they reach the market.

### ***If we are able to commercialize VRS-317 or any future product candidates, the products may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, thereby harming our business.***

The regulations that govern marketing approvals, pricing and reimbursement for new therapeutic products vary widely from country to country. Some countries require approval of the sale price of a product before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain regulatory approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product and negatively impact the revenue we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain regulatory approval.

Our ability to commercialize VRS-317 or any future products successfully also will depend in part on the extent to which reimbursement for these products and related treatments becomes available from

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government health administration authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and these third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We cannot be sure that reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Reimbursement may impact the demand for, or the price of, any product for which we obtain marketing approval. Obtaining reimbursement for our products may be particularly difficult because of the higher prices often associated with products administered under the supervision of a physician. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate that we successfully develop.

There may be significant delays in obtaining reimbursement for approved products, and coverage may be more limited than the purposes for which the product is approved by the FDA or regulatory authorities in other countries. Moreover, eligibility for reimbursement does not imply that any product will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Payment rates may vary according to the use of the product and the clinical setting in which it is used, may be based on payments allowed for lower cost products that are already reimbursed and may be incorporated into existing payments for other services. Net prices for products may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of products from countries where they may be sold at lower prices than in the United States. Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable payment rates from both government funded and private payors for new products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition. In some foreign countries, including major markets in the European Union and Japan, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take nine to twelve months or longer after the receipt of regulatory marketing approval for a product. 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 product to other available therapies. Our business could be materially harmed if reimbursement of our approved products, if any, is unavailable or limited in scope or amount or if pricing is set at unsatisfactory levels.

***Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.***

We face an inherent risk of product liability exposure related to the testing of VRS-317 and any future product candidates in human clinical studies and will face an even greater risk if we commercially sell any products that we may develop. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for any product candidates or products that we may develop;

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injury to our reputation and significant negative media attention;

withdrawal of patients from clinical studies or cancellation of studies;

significant costs to defend the related litigation;

substantial monetary awards to patients;

loss of revenue; and

the inability to commercialize any products that we may develop.

We currently hold \$5 million in product liability insurance coverage, which may not be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

### **Risks related to our financial condition and need for additional capital**

*We have a limited operating history and have incurred significant losses since our inception, and we anticipate that we will continue to incur substantial and increasing losses for the foreseeable future. We have only one product candidate and no commercial sales, which, together with our limited operating history, makes it difficult to evaluate our business and assess our future viability.*

We are a clinical-stage biopharmaceutical company with a limited operating history. We do not have any products approved for sale, and to date we have focused principally on developing our only product candidate, VRS-317. Evaluating our performance, viability or future success will be more difficult than if we had a longer operating history or approved products on the market. We continue to incur significant research and development and general and administrative expenses related to our operations. Investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate effect or an acceptable safety profile, gain regulatory approval or become commercially viable. We have incurred significant operating losses in each year since our inception and expect to incur substantial and increasing losses for the foreseeable future. As of December 31, 2013, we had an accumulated deficit of \$53.7 million.

To date, we have financed our operations primarily through private placements of our convertible preferred stock. We have devoted substantially all of our efforts to research and development, including clinical studies, but have not completed development of any product candidate. We anticipate that our expenses will increase substantially as we:

continue the research and development of our only product candidate, VRS-317, and any future product candidates;

continue clinical studies of VRS-317, including the Phase 3 clinical trial of VRS-317 that we expect to initiate, which will be our most expensive clinical trial to date;

seek to discover or in-license additional product candidates;

seek regulatory approvals for VRS-317 and any future product candidates that successfully complete clinical studies;



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establish a sales, marketing and distribution infrastructure and scale-up manufacturing capabilities to commercialize VRS-317 or other future product candidates if they obtain regulatory approval, including process improvements in order to manufacture VRS-317 at commercial scale; and

enhance operational, financial and information management systems and hire more personnel, including personnel to support development of VRS-317 and any future product candidates and, if a product candidate is approved, our commercialization efforts. To be profitable in the future, we must succeed in developing and eventually commercializing VRS-317 as well as other products with significant market potential. This will require us to be successful in a range of activities, including advancing VRS-317 and any future product candidates, completing clinical studies of these product candidates, obtaining regulatory approval for these product candidates and manufacturing, marketing and selling those products for which we may obtain regulatory approval. We are only in the preliminary stages of some of these activities. We may not succeed in these activities and may never generate revenue that is sufficient to be profitable in the future. Even if we are profitable, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to achieve sustained profitability would depress the value of our company and could impair our ability to raise capital, expand our business, diversify our product candidates, market our product candidates, if approved, or continue our operations.

***We currently have no source of product revenue and may never become profitable.***

To date, we have not generated any revenues from commercial product sales, or otherwise. Even if we are able to successfully achieve regulatory approval for VRS-317 or any future product candidates, we do not know when any of these products will generate revenue from product sales for us. Our ability to generate revenue from product sales and achieve profitability will depend upon our ability, alone or with any future collaborators, to successfully commercialize products, including VRS-317 or any product candidates that we may develop, in-license or acquire in the future. Our ability to generate revenue from product sales from VRS-317 or any future product candidates also depends on a number of additional factors, including our or any future collaborators' ability to:

complete development activities, including our ongoing Phase 2a and planned Phase 3 clinical trials of VRS-317, successfully and on a timely basis;

demonstrate the safety and efficacy of VRS-317 to the satisfaction of FDA and obtain regulatory approval for VRS-317 and future product candidates, if any, for which there is a commercial market;

complete and submit applications to, and obtain regulatory approval from, foreign regulatory authorities;

set a commercially viable price for our products;

establish and maintain supply and manufacturing relationships with reliable third parties, and ensure adequate and legally compliant manufacturing of bulk drug substances and drug products to maintain that supply;

develop a commercial organization capable of sales, marketing and distribution of any products for which we obtain marketing approval in markets where we intend to commercialize independently;

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find suitable distribution partners to help us market, sell and distribute our approved products in other markets;

obtain coverage and adequate reimbursement from third-party payors, including government and private payors;

achieve market acceptance of our products, if any;

establish, maintain and protect our intellectual property rights and avoid third-party patent interference or patent infringement claims; and

attract, hire and retain qualified personnel.

In addition, because of the numerous risks and uncertainties associated with pharmaceutical product development, including that VRS-317 or any future product candidates may not advance through development or achieve the endpoints of applicable clinical trials, we are unable to predict the timing or amount of increased expenses, or when or if we will be able to achieve or maintain profitability. In addition, our expenses could increase beyond expectations if we decide to or are required by the FDA or foreign regulatory authorities to perform studies or trials in addition to those that we currently anticipate. Even if we are able to complete the development and regulatory process for VRS-317 or any future product candidates, we anticipate incurring significant costs associated with commercializing these products.

Even if we are able to generate revenues from the sale of VRS-317 or any future product candidates that may be approved, we may not become profitable and may need to obtain additional funding to continue operations. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or shut down our operations.

***Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or our guidance.***

Our quarterly and annual operating results may fluctuate significantly in the future, which makes it difficult for us to predict our future operating results. From time to time, we may enter into collaboration agreements with other companies that include development funding and significant upfront and milestone payments and/or royalties, which may become an important source of our revenue. Accordingly, our revenue may depend on development funding and the achievement of development and clinical milestones under any potential future collaboration and license agreements and sales of our products, if approved. These upfront and milestone payments may vary significantly from period to period and any such variance could cause a significant fluctuation in our operating results from one period to the next. In addition, we measure compensation cost for stock-based awards made to employees at the grant date of the award, based on the fair value of the award as determined by our board of directors, and recognize the cost as an expense over the employee's requisite service period. As the variables that we use as a basis for valuing these awards change over time, including, after the closing of this offering, our underlying stock price and stock price volatility, the magnitude of the expense that we must recognize may vary significantly. Furthermore, our operating results may fluctuate due to a variety of other factors, many of which are outside of our control and may be difficult to predict, including the following:

the timing and cost of, and level of investment in, research and development activities relating to VRS-317 and any future product candidates, which will change from time to time;

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our ability to enroll patients in clinical trials and the timing of enrollment;

the cost of manufacturing VRS-317 and any future product candidates, which may vary depending on FDA guidelines and requirements, the quantity of production and the terms of our agreements with manufacturers;

expenditures that we will or may incur to acquire or develop additional product candidates and technologies;

the timing and outcomes of clinical studies for VRS-317 and any future product candidates or competing product candidates;

changes in the competitive landscape of our industry, including consolidation among our competitors or partners;

any delays in regulatory review or approval of VRS-317 or any of our future product candidates;

the level of demand for VRS-317 and any future product candidates, should they receive approval, which may fluctuate significantly and be difficult to predict;

the risk/benefit profile, cost and reimbursement policies with respect to our products candidates, if approved, and existing and potential future drugs that compete with our product candidates;

competition from existing and potential future drugs that compete with VRS-317 or any of our future product candidates;

our ability to commercialize VRS-317 or any future product candidate inside and outside of the United States, either independently or working with third parties;

our ability to establish and maintain collaborations, licensing or other arrangements;

our ability to adequately support future growth;

potential unforeseen business disruptions that increase our costs or expenses;

future accounting pronouncements or changes in our accounting policies; and

the changing and volatile global economic environment.

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price

of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue and/or earnings guidance we may provide.

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*We will need additional funds to support our operations, and such funding may not be available to us on acceptable terms, or at all, which would force us to delay, reduce or suspend our research and development programs and other operations or commercialization efforts. Raising additional capital may subject us to unfavorable terms, cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product candidates and technologies.*

The completion of the development and the potential commercialization of VRS-317 and any future product candidates, should they receive approval, will require substantial funds. As of December 31, 2013, we had approximately \$13.2 million in cash and cash equivalents. We believe that our existing cash and cash equivalents, including the net proceeds we received from our convertible preferred stock financings in February 2014, will be sufficient to sustain operations for at least the next 12 months based on our existing business plan. Our future financing requirements will depend on many factors, some of which are beyond our control, including the following:

the rate of progress and cost of our clinical studies;

the timing of, and costs involved in, seeking and obtaining approvals from the FDA and other regulatory authorities;

the cost of preparing to manufacture VRS-317 on a larger scale;

the costs of commercialization activities if VRS-317 or any future product candidate is approved, including product sales, marketing, manufacturing and distribution;

the degree and rate of market acceptance of any products launched by us or future partners;

the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

our ability to enter into additional collaboration, licensing, commercialization or other arrangements and the terms and timing of such arrangements;

the emergence of competing technologies or other adverse market developments; and

the costs of attracting, hiring and retaining qualified personnel.

We do not have any material committed external source of funds or other support for our development efforts. Until we can generate a sufficient amount of product revenue to finance our cash requirements, which we may never do, we expect to finance future cash needs through a combination of public or private equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. Additional financing may not be available to us when we need it or it may not be available on favorable terms. If we raise additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish certain valuable rights to VRS-317 or potential future product candidates, technologies, future revenue streams or research programs, or grant licenses on terms that may not be favorable to us. If we raise additional capital through public or private equity offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we are unable to obtain adequate financing when needed, we may have to delay, reduce the scope of, or suspend one or more of our clinical studies or research and development programs or our commercialization efforts.



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### **Risks related to our reliance on third parties**

***We rely on third parties to conduct our clinical studies, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such studies.***

We do not independently conduct clinical studies of our lead product candidate. We rely on third parties, such as contract research organizations, or CROs, clinical data management organizations, medical institutions and clinical investigators, to perform this function. For example, we currently rely on ResearchPoint Global to oversee and manage the Phase 2a stage of the Phase 1b/2a clinical trial of VRS-317. Our reliance on these third parties for clinical development activities reduces our control over these activities but does not relieve us of our responsibilities. We remain responsible for ensuring that each of our clinical studies is conducted in accordance with the general investigational plan and protocols for the study. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices, for conducting, recording and reporting the results of clinical studies to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of patients in clinical studies are protected. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical studies in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, regulatory approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

We also rely on other third parties to store and distribute supplies for our clinical studies. Any performance failure on the part of our existing or future distributors could delay clinical development or regulatory approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

***We rely on a single third-party contract manufacturing organization to manufacture and supply VRS-317. If our manufacturer and supplier fails to perform adequately or fulfill our needs, we may be required to incur significant costs and devote significant efforts to find a new supplier or manufacturer. We may also face delays in the development and commercialization of our product candidates.***

We currently have limited experience in, and we do not own facilities for, clinical-scale manufacturing of our product candidates and we currently rely upon a single third-party contract manufacturing organization to manufacture and supply drug product for our clinical studies of VRS-317. The manufacture of pharmaceutical products in compliance with the FDA's cGMPs requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, including difficulties with production costs and yields, quality control, including stability of the product candidate and quality assurance testing, shortages of qualified personnel, as well as compliance with strictly enforced cGMP requirements, other federal and state regulatory requirements and foreign regulations. If our manufacturer were to encounter any of these difficulties or otherwise fail to comply with its obligations to us or under applicable regulations, our ability to provide study drugs in our clinical studies would be jeopardized. Any delay or interruption in the supply of clinical study materials could delay the completion of our clinical studies, increase the costs associated with maintaining our clinical study programs and, depending upon the period of delay, require us to commence new studies at significant additional expense or terminate the studies.

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completely. For example, on February 20, 2014 the FDA notified us that it would require additional information before allowing us to use a newly manufactured lot of VRS-317 produced by our new manufacturer that we intend to use in our ongoing extension trial after our current supply of VRS-317 runs out. We believe we have provided appropriate responses to the FDA's requests. However, if the FDA is not satisfied with our responses, we will not be able to use VRS-317 from the new manufacturer in our clinical trials. In this case, we would be able to complete the Phase 2a stage of our pediatric GHD clinical trial, but we would have only enough VRS-317 on hand to complete approximately two months of our ongoing extension trial. In addition, prior to commencing any future clinical trials, including our planned Phase 3 clinical trial, we must validate a source of VRS-317 specific to that trial.

All manufacturers of our product candidates must comply with cGMP requirements enforced by the FDA through its facilities inspection program. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation. Manufacturers of our product candidates may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. The FDA or similar foreign regulatory agencies may also implement new standards at any time, or change their interpretation and enforcement of existing standards for manufacture, packaging or testing of products. We have little control over our manufacturers' compliance with these regulations and standards. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall or withdrawal of product approval. If the safety of any product supplied is compromised due to our manufacturers' failure to adhere to applicable laws or for other reasons, we may not be able to obtain regulatory approval for or successfully commercialize our products and we may be held liable for any injuries sustained as a result. Any of these factors could cause a delay of clinical studies, regulatory submissions, approvals or commercialization of our product candidates, entail higher costs or impair our reputation.

Our product candidate, VRS-317, is a biologic and therefore requires a complex production process. In October, 2012, we transferred production of VRS-317 to a new manufacturer, Boehringer Ingelheim. In connection with the transfer of production, we are making certain changes to the manufacturing process in order to increase its scale and efficiency. We cannot assure you that we will be able to successfully implement this transition or implement the proposed improvements to the manufacturing process. If we are not able to implement the proposed transition in a timely manner or obtain the anticipated improvements in efficiency, our business, results of operations and growth prospects would be materially adversely affected. In addition, current agreements with our manufacturer do not provide for the entire supply of the drug product necessary for full scale commercialization. If we and our manufacturer cannot agree to the terms and conditions necessary for our commercial supply needs, or if our manufacturer terminates the agreement in response to a material breach by us or otherwise becomes unable to fulfill its supply obligations, we would not be able to manufacture VRS-317 until a qualified alternative manufacturer is identified, which could also delay the development of, and impair our ability to commercialize, VRS-317.

The number of third-party manufacturers with the necessary manufacturing and regulatory expertise and facilities is limited, and it could be expensive and take a significant amount of time to arrange for alternative suppliers, which could have a material adverse effect on our business. New manufacturers of any product candidate would be required to qualify under applicable regulatory requirements and would need to have sufficient rights under applicable intellectual property laws to the method of manufacturing the product candidate. Obtaining the necessary FDA approvals or other

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qualifications under applicable regulatory requirements and ensuring non-infringement of third-party intellectual property rights could result in a significant interruption of supply and could require the new manufacturer to bear significant additional costs that may be passed on to us.

***Any future collaboration agreements we may enter into for VRS-317 or any other product candidate may place the development of VRS-317 or other product candidates outside our control, may require us to relinquish important rights or may otherwise be on terms unfavorable to us.***

We may enter into additional collaboration agreements with third parties with respect to VRS-317 for the commercialization of this candidate outside the United States, or with respect to future product candidates for commercialization in or outside the United States. Our likely collaborators for any distribution, marketing, licensing or other collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. We will have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenue from these arrangements will depend in part on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates are subject to numerous risks, which may include the following:

collaborators have significant discretion in determining the efforts and resources that they will apply to any such collaborations;

collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical study results, changes in their strategic focus due to the acquisition of competitive products, availability of funding or other external factors, such as a business combination that diverts resources or creates competing priorities;

collaborators may delay clinical studies, provide insufficient funding for a clinical study program, stop a clinical study, abandon a product candidate, repeat or conduct new clinical studies or require a new formulation of a product candidate for clinical testing;

collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates;

a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to their marketing and distribution;

collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;

disputes may arise between us and a collaborator that causes the delay or termination of the research, development or commercialization of our product candidates or that results in costly litigation or arbitration that diverts management attention and resources;

collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates; and



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collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such intellectual property.

Any termination or disruption of collaborations could result in delays in the development of product candidates, increases in our costs to develop the product candidates or the termination of development of a product candidate.

### **Risks related to the operation of our business**

***Our future success depends on our ability to retain our chief executive officer and other key executives and to attract, retain and motivate qualified personnel.***

We are highly dependent on our chief executive officer and the other principal members of our executive team. Under the terms of their employment, our executives may terminate their employment with us at any time. The loss of the services of any of these people could impede the achievement of our research, development and commercialization objectives.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

***We expect to expand our development, regulatory and sales and marketing capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.***

As of February 28, 2014, we had 14 employees. Over the next several years, we expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and sales and marketing. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Future growth would impose significant added responsibilities on members of management, including:

managing our clinical trials effectively, which we anticipate being conducted at numerous clinical sites;

identifying, recruiting, maintaining, motivating and integrating additional employees with the expertise and experience we will require;

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managing our internal development efforts effectively while complying with our contractual obligations to licensors, licensees, contractors and other third parties;

managing additional relationships with various strategic partners, suppliers and other third parties;

improving our managerial, development, operational and finance reporting systems and procedures; and

expanding our facilities.

Our failure to accomplish any of these tasks could prevent us from successfully growing our company. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

***We are an emerging growth company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies will make our common stock less attractive to investors.***

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act, or the JOBS Act, which was enacted in April 2012. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years, although circumstances could cause us to lose that status earlier. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of this offering, (b) in which we have total annual gross revenue of at least \$1.0 billion or (c) in which we are deemed to be a large accelerated filer, which means, among other things, that the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (2) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period. 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 suffer or be more volatile.

Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

***Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.***

Our operations could be subject to earthquakes, power shortages, telecommunications failures, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or

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manmade disasters or business interruptions. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. Our corporate headquarters are located in California and certain clinical sites for our product candidate, operations of our existing and future partners are or will be located in California near major earthquake faults and fire zones. The ultimate impact on us, our significant partners, suppliers and our general infrastructure of being located near major earthquake faults and fire zones and being consolidated in certain geographical areas is unknown, but our operations and financial condition could suffer in the event of a major earthquake, fire or other natural or manmade disaster.

***If we obtain approval to commercialize VRS-317 outside the United States, we will be subject to additional risks.***

If we obtain approval to commercialize any approved products outside of the United States, a variety of risks associated with international operations could materially adversely affect our business, including:

different regulatory requirements for drug approvals in foreign countries;

reduced protection for intellectual property rights;

unexpected changes in tariffs, trade barriers and regulatory requirements;

economic weakness, including inflation or political instability in particular foreign economies and markets;

compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;

foreign taxes, including withholding of payroll taxes;

foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;

workforce uncertainty in countries where labor unrest is more common than in the United States;

production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and

business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

***Our internal computer systems, or those of our CROs or other contractors or consultants, may fail or suffer security breaches, which could result in a material disruption of our drug development programs.***

Despite the implementation of security measures, our internal computer systems and those of our CROs and other contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. While we have not experienced any such system failure, accident or security breach to date, if such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug development programs. For example, the loss of clinical study data from completed or ongoing clinical studies for a product candidate could result in delays in our regulatory approval efforts



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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 the further development of any product candidates could be delayed.

### **Risks related to intellectual property**

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

We are a party to intellectual property license agreements with third parties, including with respect to VRS-317, and expect to enter into additional license agreements in the future. Our existing license agreements impose, and we expect that our future license agreements will impose, various diligence, milestone payment, royalty, insurance and other obligations on us. If we fail to comply with these obligations, our licensors may have the right to terminate these agreements, in which event we may not be able to develop and market any product that is covered by these agreements. For example, we license substantially all of the intellectual property relating to VRS-317 from Amunix, and the loss of our license agreement with Amunix would therefore materially adversely affect our ability to proceed with any development or potential commercialization of our product candidates as currently planned. Amunix has the right to terminate the license upon 30 days' written notice with respect to a particular target and the related products if (i) during any consecutive 18 month period our cumulative funding of research, development and commercialization activities in respect of such target is not at least \$250,000, in which case we would have the right to extend the applicable 18 month period by paying Amunix \$150,000; or (ii) if we do not use commercially reasonable measures to develop and commercialize licensed products based on such target. Termination of this license, or reduction or elimination of our licensed rights under it or any other license, may result in our having to negotiate new or reinstated licenses on less favorable terms or our not having sufficient intellectual property rights to operate our business. The occurrence of such events could materially harm our business and financial condition.

The risks described elsewhere pertaining to our intellectual property rights also apply to the intellectual property rights that we license, and any failure by us or our licensors to obtain, maintain, defend and enforce these rights could have a material adverse effect on our business. In some cases we do not have control over the prosecution, maintenance or enforcement of the patents that we license, and may not have sufficient ability to provide input into the patent prosecution, maintenance and defense process with respect to such patents, and our licensors may fail to take the steps that we believe are necessary or desirable in order to obtain, maintain, defend and enforce the licensed patents. We are also required to reimburse Amunix for certain costs incurred in prosecuting, maintaining, defending and enforcing the licensed patents.

*Our ability to successfully commercialize our technology and products may be materially adversely affected if we are unable to obtain and maintain effective intellectual property rights for our technologies and product candidates, or if the scope of the intellectual property protection is not sufficiently broad.*

Our success depends in large part on our and our licensors' ability to obtain and maintain patent and other intellectual property protection in the United States and in other countries with respect to our proprietary technology and products.

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We license substantially all of the intellectual property relating to VRS-317 from Amunix. We do not presently own any issued patents or pending patent applications, and our license agreement with Amunix provides that inventions relating to VRS-317 are owned by Amunix. We are therefore dependent on Amunix to apply for, prosecute, maintain, defend and, in some cases, enforce the patent rights necessary to conduct our business. However, we cannot be certain this will be done in a manner consistent with the best interests of our business. The process of applying for patents is expensive and time-consuming, and Amunix may not, or may not be able to, file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we or Amunix will fail to identify patentable aspects of our respective research and development output before it is too late to obtain patent protection. While Amunix has obtained a number of patents relating to the XTEN technology, and applied for a number of other patents relating to the XTEN technology in general, and VRS-317 in particular, we cannot assure you that the pending applications will result in issued patents, and the existing Amunix patents that we license, and any future patents they obtain may not be sufficiently broad to prevent others from using our technologies or from developing competing products and technologies. Under our license agreement with Amunix, we are obligated to use commercially reasonable efforts to develop and commercialize certain products that we license from Amunix and to maintain minimum rates of spending on research, development and commercialization. In exchange, we retain a limited, exclusive license to relevant patents and know-how related to XTEN technology. If we fail to fulfill our obligations under the agreement, Amunix could terminate the agreement.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain and involves complex legal and factual questions for which legal principles remain unresolved. In recent years patent rights have been the subject of significant litigation. As a result, the issuance, scope, validity, enforceability and commercial value of the patent rights we rely on are highly uncertain. Pending and future patent applications may not result in patents being issued which protect our technology or products or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of the patents we rely on or narrow the scope of our patent protection. The laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that our licensors were the first to make the inventions claimed in our licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions. Assuming the other requirements for patentability are met, prior to March 16, 2013, in the United States, the first to make the claimed invention is entitled to the patent, while outside the United States, the first to file a patent application is entitled to the patent.

Even if the patent applications we rely on issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner. The issuance of a patent is not conclusive as to its scope, validity or enforceability, and the patents we rely on may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop or prevent us from stopping others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Given the

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amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours or otherwise provide us with a competitive advantage.

Finally, certain of Amunix's activities have been funded, and may in the future be funded, by the U.S. government. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents, including the right to a nonexclusive license authorizing the government to use the invention. These rights may permit the government to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use Amunix's patented technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the U.S. government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, U.S. government-funded inventions must be reported to the government, U.S. government funding must be disclosed in any resulting patent applications, and Amunix's rights in such inventions may be subject to certain requirements to manufacture products in the United States.

***We may become involved in legal proceedings to protect or enforce our intellectual property rights, which could be expensive, time-consuming and unsuccessful.***

Competitors may infringe or otherwise violate the patents we rely on, or our other intellectual property rights. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. Any claims that we assert against perceived infringers could also provoke these parties to assert counterclaims against us alleging that we infringe their intellectual property rights. In addition, in an infringement proceeding, a court may decide that a patent we are asserting is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that the patents we are asserting do not cover the technology in question. An adverse result in any litigation proceeding could put one or more patents at risk of being invalidated or interpreted narrowly. 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 this type of litigation.

Interference or derivation proceedings provoked by third parties or brought by the United States Patent and Trademark Office, or USPTO, or any foreign patent authority may be necessary to determine the priority of inventions or other matters of inventorship with respect to patents and patent applications. We or our licensors may become involved in proceedings, including oppositions, interferences, derivation proceedings inter partes reviews, patent nullification proceedings, or re-examinations, challenging our patent rights or the patent rights of others, and the outcome of any such proceedings are highly uncertain. For example, Novo Nordisk A/S and XL-protein GmbH recently filed oppositions to an issued European patent relating to the XTEN technology. An adverse determination in any such proceeding could reduce the scope of, or invalidate, important patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Our business also could be harmed if a prevailing party does not offer us a license on commercially reasonable terms, if any license is offered at all. Litigation or other proceedings may fail and, even if successful, may result in substantial costs and distract our

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management and other employees. We may also become involved in disputes with others regarding the ownership of intellectual property rights. For example, we hold material service agreements with certain parties, including Amunix, and disagreements may therefore arise as to the ownership of any intellectual property developed pursuant to these relationships. If we are unable to resolve these disputes, we could lose valuable intellectual property rights.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and/or management personnel from their normal responsibilities. 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 substantial adverse effect on the market price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. Uncertainties resulting from the initiation and continuation of intellectual property litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

***Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.***

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the proprietary rights or intellectual property of third parties. We may become party to, or be threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology. Third parties may assert infringement claims against us based on existing or future intellectual property rights. If we are found to infringe a third-party's intellectual property rights, we could be required to obtain a license from such third-party to continue developing and marketing our products and technology. We may also elect to enter into such a license in order to settle pending or threatened litigation. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us, and could require us to pay significant royalties and other fees. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. These and other claims that we have misappropriated the confidential information or trade secrets of third parties can have a similar negative impact on our business to the infringement claims discussed above.

Even if we are successful in defending against intellectual property claims, litigation or other legal proceedings relating to such claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments

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and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of litigation or other intellectual property related proceedings could have a material adverse effect on our ability to compete in the marketplace.

***If we are unable to protect the confidentiality of our trade secrets, the value of our technology could be materially adversely affected, harming our business and competitive position.***

In addition to our patented technology and products, we rely upon confidential proprietary information, including trade secrets, unpatented know-how, technology and other proprietary information, to develop and maintain our competitive position. Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, thus eroding our competitive position in the market. We seek to protect our confidential proprietary information, in part, by confidentiality agreements with our employees and our collaborators and consultants. We also have agreements with our employees and selected consultants that obligate them to assign their inventions to us. These agreements are designed to protect our proprietary information, however, we cannot be certain that our trade secrets and other confidential information will not be disclosed or that competitors will not otherwise gain access to our trade secrets, or that technology relevant to our business will not be independently developed by a person that is not a party to such an agreement. Furthermore, if the employees, consultants or collaborators that are parties to these agreements breach or violate the terms of these agreements, we may not have adequate remedies for any such breach or violation, and we could lose our trade secrets through such breaches or violations. Further, our trade secrets could be disclosed, misappropriated or otherwise become known or be independently discovered by our competitors. In addition, intellectual property laws in foreign countries may not protect trade secrets and confidential information to the same extent as the laws of the United States. If we are unable to prevent disclosure of the intellectual property related to our technologies to third parties, we may not be able to establish or maintain a competitive advantage in our market, which would harm our ability to protect our rights and have a material adverse effect on our business.

***We may not be able to protect and/or enforce our intellectual property rights throughout the world.***

Filing, prosecuting and defending patents on all of our product candidates throughout the world would be prohibitively expensive to us and to our licensors. Competitors may use our technologies in jurisdictions where we or our licensors have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but where enforcement is not as strong as in the United States. These products may compete with our products in jurisdictions where we or our licensors do not have any issued patents and our patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing. Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for

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us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

*Intellectual property rights do not necessarily address all potential threats to our competitive advantage.*

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business or permit us to maintain our competitive advantage. The following examples are illustrative:

Others may be able to make products that are similar to our product candidates but that are not covered by the claims of the patents that we license;

Our licensors or collaborators might not have been the first to make the inventions covered by an issued patent or pending patent application;

Our licensors or collaborators might not have been the first to file patent applications covering an invention;

Others may independently develop similar or alternative technologies or duplicate any of our or our licensors technologies without infringing our intellectual property rights;

Pending patent applications may not lead to issued patents;

Issued patents may not provide us with any competitive advantages, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;

Our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;

We may not develop or in-license additional proprietary technologies that are patentable; and

The patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business, results of operations and prospects.

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

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid by us and/or our licensors to the USPTO and various governmental patent agencies outside of the United States in several stages over the lifetime of the licensed patents and/or applications. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent



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application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors might be able to use our technologies and those technologies licensed to us and this circumstance would have a material adverse effect on our business.

***Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of our issued patents.***

In March 2013, under the recently enacted America Invents Act, or AIA, the United States moved to a first-to-file system and made certain other changes to its patent laws. The effects of these changes are currently unclear as the USPTO must still implement various regulations, the courts have yet to address these provisions and the applicability of the act and new regulations on specific patents discussed herein have not been determined and would need to be reviewed. Accordingly, it is not yet clear what, if any, impact the AIA will have on the operation of our business. However, the AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents, all of which could have a material adverse effect on our business and financial condition.

***If our third party licensor does not obtain a patent term extension in the United States under the Hatch-Waxman Act and in foreign countries under similar legislation, thereby potentially extending the term of our marketing exclusivity for our product candidates, our business may be materially harmed.***

Depending upon the timing, duration and specifics of FDA marketing approval of our product candidates, if any, one or more of the U.S. patents covering our approved product(s) or the use thereof may be eligible for up to five years of patent term restoration under the Hatch-Waxman Act. The Hatch-Waxman Act allows a maximum of one patent to be extended per FDA approved product. Patent term extension also may be available in certain foreign countries upon regulatory approval of our product candidates. Nevertheless, we or our licensor may not be granted patent term extension either in the United States or in any foreign country because of, for example, we or our licensors failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the term of extension, as well as the scope of patent protection during any such extension, afforded by the governmental authority could be less than we request.

If we or our licensors are unable to obtain patent term extension or restoration, or the term of any such extension is less than requested, the period during which we will have the right to exclusively market our product will be shortened and our competitors may obtain approval of competing products following our patent expiration, and our revenue could be reduced, possibly materially.

### **Risks related to government regulation**

***The regulatory approval process is expensive, time consuming and uncertain and may prevent us or our collaboration partners from obtaining approvals for the commercialization of our product candidates.***

The research, testing, manufacturing, labeling, approval, selling, import, export, marketing and distribution of drug products are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries, which regulations differ from country to country. Neither we nor our collaboration partners are permitted to market our product candidates in the United

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States until we receive approval of an NDA from the FDA. Neither we nor our collaboration partners have submitted an application or received marketing approval for VRS-317 or any future product candidates. Obtaining approval of an NDA can be a lengthy, expensive and uncertain process. In addition, failure to comply with FDA and other applicable U.S. and foreign regulatory requirements may subject us to administrative or judicially imposed sanctions, including the following:

warning letters;

civil or criminal penalties and fines;

injunctions;

suspension or withdrawal of regulatory approval;

suspension of any ongoing clinical studies;

voluntary or mandatory product recalls and publicity requirements;

refusal to accept or approve applications for marketing approval of new drugs or biologics or supplements to approved applications filed by us;

restrictions on operations, including costly new manufacturing requirements; or

seizure or detention of our products or import bans.

For example, on February 20, 2014 the FDA notified us that it would require additional information before allowing us to use a newly manufactured lot of VRS-317 produced by our new manufacturer that we intend to use in our ongoing extension trial after our current supply of VRS-317 runs out. We believe we have provided appropriate responses to the FDA's requests. However, if the FDA is not satisfied with our responses, we will not be able to use VRS-317 from the new manufacturer in our clinical trials. In this case, we would be able to complete the Phase 2a stage of our pediatric GHD clinical trial, but we would have only enough VRS-317 on hand to complete approximately two months of our ongoing extension trial. In addition, prior to commencing any future clinical trials, including our planned Phase 3 clinical trial, we must validate a source of VRS-317 specific to that trial. Prior to receiving approval to commercialize any of our product candidates in the United States or abroad, we and our collaboration partners must demonstrate with substantial evidence from well-controlled clinical studies, and to the satisfaction of the FDA and other regulatory authorities abroad, that such product candidates are safe and effective for their intended uses. Results from preclinical studies and clinical studies can be interpreted in different ways. Even if we and our collaboration partners believe the preclinical or clinical data for our product candidates are promising, such data may not be sufficient to support approval by the FDA and other regulatory authorities. Administering any of our product candidates to humans may produce undesirable side effects, which could interrupt, delay or cause suspension of clinical studies of our product candidates and result in the FDA or other regulatory authorities denying approval of our product candidates for any or all targeted indications.

Regulatory approval of an NDA is not guaranteed, and the approval process is expensive and may take several years. The FDA also has substantial discretion in the approval process. Despite the time and expense exerted, failure can occur at any stage, and we could encounter problems that cause us to abandon or repeat clinical studies, or perform additional preclinical studies and clinical studies. The number of preclinical studies and clinical studies that will be required for FDA approval varies depending on the product candidate, the disease or condition that the product candidate is designed to



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address and the regulations applicable to any particular product candidate. The FDA can delay, limit or deny approval of a product candidate for many reasons, including, but not limited to, the following:

a product candidate may not be deemed safe or effective;

FDA officials may not find the data from preclinical studies and clinical studies sufficient;

the FDA might not approve our or our third-party manufacturer's processes or facilities; or

the FDA may change its approval policies or adopt new regulations.

If VRS-317 or any future product candidates fail to demonstrate safety and efficacy in clinical studies or do not gain regulatory approval, our business and results of operations will be materially and adversely harmed.

***Even if we receive regulatory approval for a product candidate, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and subject us to penalties if we fail to comply with applicable regulatory requirements.***

Once regulatory approval has been granted, the approved product and its manufacturer are subject to continual review by the FDA and/or non-U.S. regulatory authorities. Any regulatory approval that we or any future collaboration partners receive for VRS-317 or any future product candidates may be subject to limitations on the indicated uses for which the product may be marketed or contain requirements for potentially costly post-marketing follow-up studies to monitor the safety and efficacy of the product. In addition, if the FDA and/or non-U.S. regulatory authorities approve VRS-317 or any future product candidates, we will be subject to extensive and ongoing regulatory requirements by the FDA and other regulatory authorities with regard to the labeling, packaging, adverse event reporting, storage, advertising, promotion and recordkeeping for our products. In addition, manufacturers of our drug products are required to comply with cGMP regulations, which include requirements related to quality control and quality assurance as well as the corresponding maintenance of records and documentation. Further, regulatory authorities must approve these manufacturing facilities before they can be used to manufacture our drug products, and these facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMP regulations. If we or a third party discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory authority may impose restrictions on that product, the manufacturer or us, including requiring withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with regulatory requirements of the FDA and/or other non-U.S. regulatory authorities, we could be subject to administrative or judicially imposed sanctions, including the following:

warning letters;

civil or criminal penalties and fines;

injunctions;

suspension or withdrawal of regulatory approval;

suspension of any ongoing clinical studies;

voluntary or mandatory product recalls and publicity requirements;

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refusal to accept or approve applications for marketing approval of new drugs or biologics or supplements to approved applications filed by us;

restrictions on operations, including costly new manufacturing requirements; or

seizure or detention of our products or import bans.

The regulatory requirements and policies may change and additional government regulations may be enacted with which we may also be required to comply. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or in other countries. If we are not able to maintain regulatory compliance, we may not be permitted to market our future products and our business may suffer.

### ***Failure to obtain regulatory approvals in foreign jurisdictions will prevent us from marketing our products internationally.***

We intend to seek a distribution and marketing partner for VRS-317 outside the United States and may market future products in international markets. In order to market our future products in regions such as the European Economic Area, or EEA, Asia Pacific, or APAC, and many other foreign jurisdictions, we must obtain separate regulatory approvals.

For example, in the EEA, medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA. Before granting the MA, the European Medicines Agency or the competent authorities of the member states of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy. In Japan, the Pharmaceuticals and Medical Devices Agency, or PMDA, of the Ministry of Health Labour and Welfare, or MHLW, must approve an application under the Pharmaceutical Affairs Act before a new drug product may be marketed in Japan.

We have had limited interactions with foreign regulatory authorities. The approval procedures vary among countries and can involve additional clinical testing, and the time required to obtain approval may differ from that required to obtain FDA approval. Moreover, clinical studies conducted in one country may not be accepted by regulatory authorities in other countries. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one or more foreign regulatory authorities does not ensure approval by regulatory authorities in other foreign countries or by the FDA. However, a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. The foreign regulatory approval process may include all of the risks associated with obtaining FDA approval. We may not obtain foreign regulatory approvals on a timely basis, if at all. We may not be able to file for regulatory approvals and even if we file we may not receive necessary approvals to commercialize our products in any market.

### ***Healthcare reform measures could hinder or prevent our product candidates' commercial success.***

In the United States, there have been and we expect there will continue to be a number of legislative and regulatory changes to the healthcare system in ways that could affect our future revenue and profitability and the future revenue and profitability of our potential customers. Federal and state lawmakers regularly propose and, at times, enact legislation that would result in significant changes to the healthcare system, some of which are intended to contain or reduce the costs of medical products and services. For example, one of the most significant healthcare reform measures in decades, the

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Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, collectively, the PPACA, was enacted in 2010. The PPACA contains a number of provisions, including those governing enrollment in federal healthcare programs, reimbursement changes and fraud and abuse measures, all of which will impact existing government healthcare programs and will result in the development of new programs. The PPACA, among other things:

imposes a non-deductible annual fee on pharmaceutical manufacturers or importers who sell branded prescription drugs, effective 2011;

increases the minimum level of Medicaid rebates payable by manufacturers of brand-name drugs from 15.1% to 23.1%, effective 2011;

could result in the imposition of injunctions;

requires collection of rebates for drugs paid by Medicaid managed care organizations;

requires manufacturers to participate in a coverage gap discount program, under which they must agree to offer 50% point-of-sale discounts off negotiated prices of applicable branded drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; and

creates a process for approval of biologic therapies that are similar or identical to approved biologics.

While the U.S. Supreme Court upheld the constitutionality of most elements of the PPACA in June 2012, other legal challenges are still pending final adjudication in several jurisdictions. In addition, Congress has also proposed a number of legislative initiatives, including possible repeal of the PPACA. At this time, it remains unclear whether there will be any changes made to the PPACA, whether to certain provisions or its entirety. We cannot assure you that the PPACA, as currently enacted or as amended in the future, will not adversely affect our business and financial results and we cannot predict how future federal or state legislative or administrative changes relating to healthcare reform will affect our business.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. For example, the Budget Control Act of 2011, among other things, created the Joint Select Committee on Deficit Reduction to recommend proposals for spending reductions to Congress. The Joint Select Committee did not achieve a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, which triggered the legislation's automatic reduction to several government programs, including aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, or the ATRA, which delayed for another two months the budget cuts mandated by the sequestration provisions of the Budget Control Act of 2011. The ATRA, among other things, also reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. In March 2013, the President signed an executive order implementing sequestration, and in April 2013, the 2% Medicare reductions went into effect. We cannot predict whether any additional legislative changes will affect our business.

There likely will continue to be legislative and regulatory proposals at the federal and state levels directed at containing or lowering the cost of health care. We cannot predict the initiatives that may be

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adopted in the future or their full impact. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of health care may adversely affect:

our ability to set a price that we believe is fair for our products;

our ability to generate revenue and achieve or maintain profitability; and

the availability of capital.

Further, changes in regulatory requirements and guidance may occur and we may need to amend clinical study protocols to reflect these changes. Amendments may require us to resubmit our clinical study protocols to Institutional Review Boards for reexamination, which may impact the costs, timing or successful completion of a clinical study. In light of widely publicized events concerning the safety risk of certain drug products, regulatory authorities, members of Congress, the Governmental Accounting Office, medical professionals and the general public have raised concerns about potential drug safety issues. These events have resulted in the recall and withdrawal of drug products, revisions to drug labeling that further limit use of the drug products and establishment of risk management programs that may, for instance, restrict distribution of drug products or require safety surveillance and/or patient education. The increased attention to drug safety issues may result in a more cautious approach by the FDA to clinical studies and the drug approval process. Data from clinical studies may receive greater scrutiny with respect to safety, which may make the FDA or other regulatory authorities more likely to terminate or suspend clinical studies before completion, or require longer or additional clinical studies that may result in substantial additional expense and a delay or failure in obtaining approval or approval for a more limited indication than originally sought.

Given the serious public health risks of high profile adverse safety events with certain drug products, the FDA may require, as a condition of approval, costly risk evaluation and mitigation strategies, which may include safety surveillance, restricted distribution and use, patient education, enhanced labeling, special packaging or labeling, expedited reporting of certain adverse events, preapproval of promotional materials and restrictions on direct-to-consumer advertising.

***If we fail to comply with healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.***

Even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. We could be subject to healthcare fraud and abuse and patient privacy regulation by both the federal government and the states in which we conduct our business. The regulations that may affect our ability to operate include, without limitation:

the federal healthcare program Anti-Kickback Statute, which prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs;

indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs;

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the federal False Claims Act, which prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, false claims, or knowingly using false statements, to obtain payment from the federal government, and which may apply to entities like us which provide coding and billing advice to customers;

federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

the federal transparency requirements under the Health Care Reform Law requires manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests;

the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, which governs the conduct of certain electronic healthcare transactions and protects the security and privacy of protected health information; and

state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers.

The PPACA, among other things, amends the intent requirement of the Federal Anti-Kickback Statute and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the PPACA provides that the government may assert that a claim including items or services resulting from a violation of the Federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security and fraud laws may prove costly.

### **Risks related to this offering and ownership of our common stock**

*Our stock price may be volatile, and purchasers of our common stock could incur substantial losses.*

Our stock price is likely to be volatile. The stock market in general and the market for biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including the following:

the success of competitive products or technologies;

results of clinical studies of VRS-317 or future product candidates or those of our competitors;

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regulatory or legal developments in the United States and other countries, especially changes in laws or regulations applicable to our products;

introductions and announcements of new products by us, our commercialization partners, or our competitors, and the timing of these introductions or announcements;

actions taken by regulatory agencies with respect to our products, clinical studies, manufacturing process or sales and marketing terms;

variations in our financial results or those of companies that are perceived to be similar to us;

the success of our efforts to acquire or in-license additional products or product candidates;

developments concerning our collaborations, including but not limited to those with our sources of manufacturing supply and our commercialization partners;

developments concerning our ability to bring our manufacturing processes to scale in a cost-effective manner;

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

developments or disputes concerning patents or other proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our products;

our ability or inability to raise additional capital and the terms on which we raise it;

the recruitment or departure of key personnel;

changes in the structure of healthcare payment systems;

market conditions in the pharmaceutical and biotechnology sectors;

actual or anticipated changes in earnings estimates or changes in stock market analyst recommendations regarding our common stock, other comparable companies or our industry generally;

trading volume of our common stock;

sales of our common stock by us or our stockholders;

general economic, industry and market conditions; and

the other risks described in this Risk factors section.

These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market, securities class-action litigation has often been instituted against companies. Such litigation, if instituted against us, could result in substantial costs and diversion of management's attention and resources, which could materially and adversely affect our business, financial condition, results of operations and growth prospects.

***A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.***

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares

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intend to sell shares, could reduce the market price of our common stock. Immediately after this offering, we will have 23,262,323 outstanding shares of common stock based on (i) the number of shares outstanding as of December 31, 2013, which assumes the net exercise of all warrants and the conversion of all shares of convertible preferred stock, including those shares issued upon the exercise of the warrants, then outstanding, (ii) additional shares we issued in February 2014 and (iii) the shares that we are selling in this offering, which may be resold in the public market immediately, without restriction, unless purchased by our affiliates. Of the remaining shares, 17,262,323 shares are currently restricted as a result of securities laws or lock-up agreements but will be able to be sold after the offering as described in the section of this prospectus entitled

Shares eligible for future sale. Moreover, immediately after this offering, holders of an aggregate of up to 16,005,012 shares of our common stock, including shares of our common stock issuable upon exercise of outstanding warrants, will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the section of this prospectus entitled Underwriting.

***After this offering, our executive officers, directors and principal stockholders will continue to maintain the ability to control or significantly influence all matters submitted to stockholders for approval.***

Upon the closing of this offering, our executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering will, in the aggregate, beneficially own shares representing approximately 53.5% of our common stock, based on 23,136,629 shares of common stock outstanding immediately after the closing of this offering, assuming conversion of our convertible preferred stock and no exercise of outstanding options or warrants and no exercise of the underwriters' option to purchase additional shares of common stock. As a result, if these stockholders were to choose to act together, they would be able to control or significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these stockholders, if they choose to act together, will control or significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

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

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will be subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, the other rules and regulations of the Securities and Exchange Commission, or SEC, and the rules and regulations of The NASDAQ Global Select Market, or NASDAQ. The expenses that will be required in order to adequately prepare for being a public company will be material, and compliance with the various reporting and other requirements applicable to public companies will require considerable time and attention of management. For example, the Sarbanes-Oxley Act and the rules of the SEC and national securities exchanges have imposed various requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls. Our management and other personnel will need to devote a

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substantial amount of time to these compliance initiatives. These rules and regulations will continue to 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 accept reduced policy limits on coverage or incur substantial costs to maintain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified personnel to serve on our board of directors, our board committees, or as executive officers.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act, beginning as early as our annual report on Form 10-K for the fiscal year ended December 31, 2014. In addition, we will be required to have our independent registered public accounting firm attest to the effectiveness of our internal control over financial reporting beginning with our annual report on Form 10-K following the date on which we are no longer an emerging growth company. Our compliance with Section 404 of the Sarbanes-Oxley Act will require that we incur substantial accounting expense and expend significant management efforts. We currently do not have an internal audit group, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. If we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identify deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by NASDAQ, the SEC or other regulatory authorities, which would require additional financial and management resources.

Our ability to successfully implement our business plan and comply with Section 404 requires us to be able to prepare timely and accurate financial statements. We expect that we will need to continue to improve existing, and implement new operational and financial systems, procedures and controls to manage our business effectively. Any delay in the implementation of, or disruption in the transition to, new or enhanced systems, procedures or controls, may cause our operations to suffer and we may be unable to conclude that our internal control over financial reporting is effective and to obtain an unqualified report on internal controls from our auditors as required under Section 404 of the Sarbanes-Oxley Act. This, in turn, could have an adverse impact on trading prices for our common stock, and could adversely affect our ability to access the capital markets.

***We have identified a material weakness in our internal control over financial reporting and may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate one or more of our material weaknesses or if we fail to establish and maintain effective control over financial reporting, our ability to accurately and timely report our financial results could be adversely affected.***

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with U.S. generally accepted accounting principles. A material weakness is a deficiency, or

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a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis.

Prior to the completion of this offering, we have been a private company with limited accounting personnel and other resources to address our internal control over financial reporting. During the course of preparing for this offering, we determined that material adjustments to various accounts were necessary, which required us to restate the financial statements as of and for the years ended December 31, 2012 and 2011 and for the period from inception (December 10, 2008) through December 31, 2012 that had been previously audited by another independent audit firm. These adjustments leading to a restatement of those financial statements led us to conclude that we had a material weakness in internal control over financial reporting as of December 31, 2012. The material weakness that we identified was that we did not maintain a sufficient complement of resources with an appropriate level of accounting knowledge, experience and training commensurate with our structure and financial reporting requirements.

This material weakness contributed to adjustments to previously issued financial statements principally, but not limited to, the following areas: equity accounting in connection with our issuance of Series A and B convertible preferred stock and period-end cutoff for clinical trial related expenses.

For a discussion of our remediation plan and the actions that we have executed during 2013, see Management's discussion and analysis of financial condition and results of operations Controls and procedures. The actions we have taken are subject to continued review, supported by confirmation and testing by management as well as audit committee oversight. While we have implemented a plan to remediate this weakness we cannot assure you that we will be able to remediate this weakness, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows. If we are unable to successfully remediate this material weakness, and if we are unable to produce accurate and timely financial statements, our stock price may be adversely affected and we may be unable to maintain compliance with applicable NASDAQ listing requirements.

Our failure to remediate the material weakness identified above or the identification of additional material weaknesses in the future, could adversely affect our ability to report financial information, including our filing of quarterly or annual reports with the SEC on a timely and accurate basis. Moreover, our failure to remediate the material weakness identified above or the identification of additional material weaknesses, could prohibit us from producing timely and accurate consolidated financial statements, which may adversely affect our stock price and we may be unable to maintain compliance with NASDAQ listing requirements.

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

The initial public offering price is substantially higher than the net tangible book value per share of our common stock. Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of \$12.05 per share, based on an assumed initial public offering price of \$20.00 per share, which is the midpoint of the price range set forth on the cover of this prospectus. Further, investors purchasing common stock in this offering will contribute approximately 47.6% of the total cash invested by stockholders since our inception, but will own, as a result of such investment, only approximately 25.8% of the shares of common stock outstanding immediately following this offering.

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The exercise of any of our outstanding options would result in additional dilution. 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. Further, because we may need to raise additional capital to fund our clinical development programs, we may in the future sell substantial amounts of common stock or securities convertible into or exchangeable for common stock. These future issuances of equity or equity-linked securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions, if any, may result in further dilution to investors.

### ***An active trading market for our common stock may not develop.***

Prior to this offering, there has been no public market for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters. Although our common stock has been approved for listing on NASDAQ, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop, it may be difficult for our stockholders to sell shares purchased in this offering without depressing the market price for the shares or at all.

### ***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 will depend, in part, on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on our company. If no securities or industry analysts commence coverage of our company, the trading price for our common stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, 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.

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

Although we currently intend to use the net proceeds from this offering in the manner described in the section entitled "Use of proceeds," our management will have broad discretion in the application of the balance of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of VRS-317. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

### ***Provisions in our corporate charter documents and under Delaware law could make an acquisition of us more difficult and may prevent attempts by our stockholders to replace or remove our current management.***

Provisions in our corporate charter and our bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of us

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that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, 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. Because our board of directors is responsible for appointing the members of our management team, these provisions could in turn affect any attempt by our stockholders to replace current members of our management team. Among others, these provisions include the following:

our board of directors will be divided into three classes with staggered three-year terms which may delay or prevent a change of our management or a change in control;

our board of directors will have the right to elect directors to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which will prevent stockholders from being able to fill vacancies on our board of directors;

our stockholders will not be able to act by written consent or call special stockholders meetings; as a result, a holder, or holders, controlling a majority of our capital stock would not be able to take certain actions other than at annual stockholders meetings or special stockholders meetings called by the board of directors, the chairman of the board, the chief executive officer or the president;

our certificate of incorporation will prohibit cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;

our stockholders will be required to provide advance notice and additional disclosures in order to nominate individuals for election to the board of directors or to propose matters that can be acted upon at a stockholders meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of our company; and

our board of directors will be able to issue, without stockholder approval, shares of undesignated preferred stock, which makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

***Our employment agreements with 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 us, which could harm our financial condition or results.***

Certain of our executive officers are parties to employment agreements that contain change in control and severance provisions providing for aggregate cash payments of up to approximately \$1.2 million for severance and other benefits and acceleration of vesting of stock options with a value of approximately \$11.9 million (as of December 31, 2013, based on an assumed initial public offering

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price of \$20.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus) in the event of a termination of employment in connection with a change in control of us. The accelerated vesting of options could result in dilution to our existing stockholders and harm 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.

***Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, will be our stockholders' sole source of gain.***

We have never declared or paid cash dividends on our common stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of existing or any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

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**Cautionary statement concerning forward-looking statements**

This prospectus, including the sections titled Prospectus summary, Risk factors, Use of proceeds, Management's discussion and analysis of financial condition and results of operations, Market, industry and other data, Business and Shares eligible for future sale, contains forward-looking statements. In some cases you can identify these statements by forward-looking words, such as believe, may, will, estimate, continue, anticipate, intend, could, would, project, plan, potential, seek, expect, goal, or the negative or plural of these words or expressions. These forward-looking statements include, but are not limited to, statements concerning the following:

our expected uses of the net proceeds to us from this offering;

our ability to enroll patients in our clinical studies at the pace that we project;

the timing and the success of the design of the Phase 2a stage of our Phase 1b/2a clinical trial and planned Phase 3 clinical trial of VRS-317;

whether the results of our trials will be sufficient to support domestic or global regulatory approvals for VRS-317;

our ability to obtain and maintain regulatory approval of VRS-317 or our future product candidates;

our expectation that our existing capital resources and the net proceeds from this offering will be sufficient to enable us to complete our planned Phase 3 clinical trial of VRS-317;

the benefits of the use of VRS-317;

the projected dollar amounts of future sales of established and novel rhGH therapies;

our ability to successfully commercialize VRS-317 or any future product candidates;

the rate and degree of market acceptance of VRS-317 or any future product candidates;

our expectations regarding government and third-party payor coverage and reimbursement;

our ability to manufacture VRS-317 in conformity with the FDA's requirements and to scale up manufacturing of VRS-317 to commercial scale;

our ability to successfully build a specialty sales force and commercial infrastructure;

our ability to compete with companies currently producing rhGH therapies;

our reliance on third parties to conduct our clinical studies;

our reliance on third-party contract manufacturers to manufacture and supply our product candidates for us;

our reliance on our collaboration partners' performance over which we do not have control;

our ability to retain and recruit key personnel, including development of a sales and marketing function;

our ability to obtain and maintain intellectual property protection for VRS-317 or any future product candidates;

the actual receipt and timing of any milestone payments or royalties from our collaborators;

our estimates of our expenses, ongoing losses, future revenue, capital requirements and our needs for or ability to obtain additional financing;

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our expectations regarding the time during which we will be an emerging growth company under the Jumpstart Our Business Startups Act;

our ability to identify, develop, acquire and in-license new products and product candidates;

our ability to successfully establish and successfully maintain appropriate collaborations and derive significant revenue from those collaborations;

our financial performance; and

developments and projections relating to our competitors or our industry.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in Risk factors. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

You should read this prospectus and the documents that we reference in this prospectus and have filed with the SEC as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

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**Market, industry and other data**

We obtained the industry, market and similar data set forth in this prospectus from our own internal estimates and research, and from industry publications and research, surveys and studies conducted by third parties, including primary market research commissioned by us. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such information and estimates.

Information that is based on 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 that are assumed in this information. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

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### **Use of proceeds**

We estimate that the net proceeds from our issuance and sale of 6,000,000 shares of our common stock in this offering will be approximately \$109.2 million, or approximately \$126.0 million if the underwriters exercise their option to purchase additional shares in full, assuming an initial public offering price of \$20.00, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A \$1.00 increase (decrease) in the assumed initial public offering price of \$20.00 per share would increase (decrease) the net proceeds from this offering by approximately \$5.6 million, assuming that the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 1,000,000 shares in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering by approximately \$18.6 million, assuming that the assumed initial public offering price remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

As of December 31, 2013, we had cash and cash equivalents of approximately \$13.2 million and we received an additional \$65.0 million in gross proceeds from our preferred stock financings in February 2014. We currently estimate that we will use the net proceeds from this offering, together with our cash and cash equivalents, as follows:

approximately \$65.0 million to fund our ongoing and planned clinical development of VRS-317 for the treatment of pediatric GHD; and

the balance to fund working capital, capital expenditures and other general corporate purposes, which may include the acquisition or licensing of other products, businesses or technologies.

This expected use of the net proceeds from this offering and our existing cash and cash equivalents represents our intentions based upon our current plans and business conditions. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development and commercialization efforts and the status of and results from clinical studies, as well as any collaborations that we may enter into with third parties and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering. We have no current understandings, agreements or commitments for any material acquisitions or licenses of any products, businesses or technologies.

Based on our planned use of the net proceeds from this offering and our existing cash and cash equivalents described above, we expect that such funds will be sufficient to enable us to complete our planned Phase 3 clinical trial of VRS-317. However, it is possible that we will not achieve the progress that we expect because the actual costs and timing of drug development, particularly clinical studies, are difficult to predict, subject to substantial risks and delays and often vary depending on the particular indication and development strategy. We do not expect that the net proceeds from this offering and our existing cash and cash equivalents will be sufficient to enable us to fund substantial development of our other product candidates.

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Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment grade, interest bearing instruments and U.S. government securities.

**Dividend policy**

We have never declared or paid, and do not anticipate declaring, or paying in the foreseeable future, any cash dividends on our capital stock. Future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then existing conditions, including our operating results, financial conditions, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

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**Capitalization**

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2013:

on an actual basis;

on a pro forma basis to reflect (1) the filing of our amended and restated certificate of incorporation and the automatic conversion of outstanding shares of our convertible preferred stock as of December 31, 2013 into an aggregate of 10,491,140 shares of common stock immediately prior to the closing of this offering; (2) the issuance of shares of Series D-2 convertible preferred stock in February 2014 and automatic conversion of those shares into 1,145,070 shares of common stock as if they had occurred as of December 31, 2013, the receipt of approximately \$10.0 million of gross proceeds from such sale and the related beneficial conversion feature on the Series D-2 convertible preferred stock; (3) the issuance of shares of Series E convertible preferred stock in February 2014 and automatic conversion of those shares into 4,239,894 shares of common stock as if they had occurred as of December 31, 2013, the receipt of approximately \$55.0 million of gross proceeds from such sale and the related beneficial conversion feature on the Series E convertible preferred stock; and (4) the net exercise of all warrants to purchase shares of our convertible preferred stock, the automatic conversion of such shares into an aggregate of 128,908 shares of common stock and the related reclassification of the convertible preferred warrant liability and convertible preferred stock call option liability to additional paid-in capital. We have based our assumption regarding the conversion of preferred stock into common stock immediately prior to the closing of this offering, based on stockholder consents we have obtained approving the conversion so long as net proceeds of this offering exceed \$50 million and our anticipation that net proceeds from this offering will be in excess of \$50 million; and

on a pro forma as adjusted basis to further reflect the sale by us of 6,000,000 shares of common stock in this offering at an assumed initial public offering price of \$20.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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You should read this table together with the sections in this prospectus entitled "Selected financial data," and "Management's discussion and analysis of financial condition and results of operations" and our financial statements and related notes included elsewhere in this prospectus.

|  | As of December 31, 2013                         |             |   |
|--|---|-------------|---|
|  | Actual  | Pro Forma   | Pro Forma                                 |
|  | (in thousands, except share and per share data) | (unaudited) | as Adjusted <sup>(1)</sup><br>(unaudited) |
| Cash and cash equivalents  | \$ 13,213                                       | \$ 78,213   | \$ 187,437                                |
| Convertible preferred stock warrant liability  | 474   |             |   |
| Convertible preferred stock call option liability  | 21  |             |   |
| Convertible preferred stock, par value \$0.0001 per share: 135,816,462 shares authorized, 120,648,174 shares issued and outstanding, actual; no shares authorized, issued and outstanding pro forma and pro forma as adjusted  | 57,497  |             |   |
| Stockholders' equity (deficit):  |   |             |   |
| Preferred stock, par value \$0.0001 per share: no shares authorized, no shares issued and outstanding, actual; 5,000,000 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted  |   |             |   |
| Common stock, par value \$0.0001 per share: 15,652,174 shares authorized, 1,257,311 shares issued and outstanding, actual; 50,000,000 shares authorized, 17,262,323 shares issued and outstanding pro forma; 50,000,000 shares authorized, 23,262,323 shares issued and outstanding, pro forma as adjusted |   | 2           | 2   |
| Additional paid-in capital   | 6,454   | 130,882     | 240,106                                   |
| Accumulated deficit  | (53,746)  | (55,184)    | (55,184)                                  |
| Total stockholders' (deficit) equity   | (47,292)  | 75,700      | 184,924                                   |
| Total capitalization   | \$ 10,205                                       | \$ 75,700   | \$ 184,924                                |

- (1) A \$1.00 increase (decrease) in the assumed initial public offering price of \$20.00 per share would increase (decrease) each of pro forma as adjusted cash and cash equivalents, working capital and total assets by \$5.6 million and increase (decrease) pro forma as adjusted total stockholders' equity by \$5.6 million, assuming the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 shares in the number of shares we are offering would increase (decrease) each of pro forma as adjusted cash and cash equivalents, working capital and total assets by approximately \$18.6 million and increase (decrease) pro forma as adjusted total stockholders' equity by approximately \$18.6 million, assuming the assumed initial public offering price per share, as set forth on the cover page of this prospectus, remains the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price, number of shares offered and other terms of this offering determined at pricing.

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The number of shares of our common stock to be outstanding after this offering is based on (i) 11,877,359 shares of our common stock outstanding as of December 31, 2013, which assumes the net exercise of all warrants and the conversion of all shares of convertible preferred stock, including those shares issued upon the exercise of the warrants, then outstanding, and (ii) an additional 5,384,964 shares of our common stock issuable upon conversion of shares of our convertible preferred stock issued in February 2014, and excludes the following:

1,403,655 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2013 at a weighted-average exercise price of \$1.90 per share;

537,194 shares of our common stock issuable upon the exercise of stock options granted after December 31, 2013 at a weighted-average exercise price of \$8.09 per share;

4,100,255 shares of common stock, subject to increase on an annual basis, reserved for future issuance under our 2014 Equity Incentive Plan, or our 2014 Plan, which will become effective in connection with the completion of this offering, consisting of:

1,695,692 shares of common stock reserved for future grant or issuance under our 2014 Plan, which will become effective in connection with the completion of this offering, approximately 255,000 of which will be subject to stock options that we plan to grant concurrently with this offering, which options will have an exercise price equal to the price to the public in this offering;

470,521 shares of common stock reserved for future issuance under our 2009 Stock Plan, which shares will be added to the shares of common stock to be reserved under our 2014 Plan upon its effectiveness; and

an additional number of shares subject to awards outstanding under the 2009 Stock Plan that expire, terminate or are forfeited; and

150,000 shares of our common stock, subject to increase on an annual basis, reserved for future issuance under our 2014 Employee Stock Purchase Plan.

**Table of Contents****Dilution**

Dilution is the amount by which the offering price paid by the purchasers of the shares of common stock sold in the offering exceeds the pro forma as adjusted net tangible book value per share of our common stock after this offering. The historical net tangible book value of our common stock as of December 31, 2013 was \$(47.3) million, or \$(4.03) per share, and represents total tangible assets less our total liabilities, including convertible preferred stock, divided by the number of outstanding shares of our common stock, assuming the conversion of all of our convertible preferred stock. The pro forma net tangible book value of our common stock as of December 31, 2013 was \$75.7 million, or \$4.39 per share. Pro forma net tangible book value per share represents our total tangible assets less our total liabilities, divided by the number of outstanding shares of our common stock, after giving effect to the pro forma adjustments referenced under Capitalization.

After giving effect to (i) the pro forma adjustments referenced under Capitalization and (ii) our receipt of the net proceeds from our sale of 6,000,000 shares of our common stock at an assumed initial public offering price of \$20.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2013 would have been approximately \$184.9 million, or \$7.95 per share. This represents an immediate increase in pro forma as adjusted net tangible book value of \$3.56 per share to our existing stockholders and an immediate dilution of \$12.05 per share to investors purchasing common stock in this offering.

The following table illustrates this dilution on a per share basis to new investors:

|   |           |
|---|-----------|
| Assumed initial public offering price per share                                       | \$ 20.00  |
| Historical net tangible book value per share as of December 31, 2013                  | \$ (4.03) |
| Pro forma net tangible book value per share as of December 31, 2013                   | \$ 4.39   |
| Increase in pro forma net tangible book value per share attributable to new investors | \$ 3.56   |
| Pro forma as adjusted net tangible book value per share after this offering           | \$ 7.95   |
| Dilution per share to investors participating in this offering                        | \$ 12.05  |

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$20.00 per share would increase (decrease) the pro forma net tangible book value, as adjusted to give effect to this offering, by \$0.24 per share and the dilution to new investors by \$0.76 per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares in this offering in full, the pro forma net tangible book value, as adjusted to give effect to this offering, would be \$8.35 per share and the dilution to new investors would be \$0.40 per share.

We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 shares in the number of shares we are offering would increase (decrease) our pro forma as adjusted net tangible book value by approximately \$18.6 million, or \$0.44 per share, and decrease (increase) the pro forma dilution per share to investors in this offering by \$0.44 per share, assuming that the assumed initial public offering price remains the same, and after deducting estimated

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underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma information discussed above is illustrative only and will change based on the actual initial public offering price, number of shares and other terms of this offering determined at pricing.

The table below summarizes as of December 31, 2013, on a pro forma as adjusted basis described above, the number of shares of our common stock, the total consideration, and the average price per share (i) paid to us by our existing stockholders and (ii) to be paid by new investors purchasing our common stock in this offering at an assumed initial public offering price of \$20.00 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

|  | Shares purchased  |               | Total consideration           |               | Average price per share |
|--|-------------------|---------------|-------------------------------|---------------|-------------------------|
|  | Number            | Percent       | Amount                        | Percent       |                         |
| Existing stockholders before this offering | 17,262,323        | 74.2%         | \$ 132,245,118 <sup>(1)</sup> | 52.4%         | \$ 7.66                 |
| New investors                              | 6,000,000         | 25.8          | 120,000,000                   | 47.6          | \$ 20.00                |
| <b>Total</b>                               | <b>23,262,323</b> | <b>100.0%</b> | <b>\$ 252,245,118</b>         | <b>100.0%</b> |                         |

(1) Excludes non-cash consideration received from Amunix Operating, Inc. in exchange for shares of convertible preferred stock. A \$1.00 increase (decrease) in the assumed initial public offering price of \$20.00 per share would increase (decrease) total consideration paid by new investors by \$6.0 million and increase (decrease) the percent of total consideration paid by new investors by 1.2%, assuming the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering.

If the underwriters exercise their option to purchase additional shares in this offering in full, the percentage of shares of our common stock held by existing stockholders will be reduced to 71.4% of the total number of shares of our common stock outstanding after this offering, and the number of shares held by new investors will increase to 6,900,000 shares, or 28.6% of the total number of shares of our common stock outstanding after this offering.

The number of shares of our common stock to be outstanding after this offering is based on (i) 11,877,359 shares of our common stock outstanding as of December 31, 2013, which assumes the net exercise of all warrants and the conversion of all shares of convertible preferred stock, including those shares issued upon the exercise of the warrants, then outstanding, and (ii) an additional 5,384,964 shares of our common stock issuable upon conversion of shares of our convertible preferred stock issued in February 2014, and excludes the following:

1,403,655 shares of our common stock issuable upon the exercise of stock options outstanding as of December 31, 2013 at a weighted-average exercise price of \$1.90 per share;

537,194 shares of our common stock issuable upon the exercise of stock options granted after December 31, 2013 with a weighted-average exercise price of \$8.09 per share;

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4,100,255 shares of common stock, subject to increase on an annual basis, reserved for future issuance under our 2014 Equity Incentive Plan, or our 2014 Plan, which will become effective in connection with the completion of this offering, consisting of:

1,695,692 shares of common stock reserved for future grant or issuance under our 2014 Plan, which will become effective in connection with the completion of this offering;

470,521 shares of common stock reserved for future issuance under our 2009 Stock Plan, which shares will be added to the shares of common stock to be reserved under our 2014 Plan upon its effectiveness; and

an additional number of shares subject to awards outstanding under the 2009 Stock Plan that expire, terminate or are forfeited; and

150,000 shares of our common stock, subject to increase on an annual basis, reserved for future issuance under our 2014 Employee Stock Purchase Plan.

To the extent that any outstanding options are exercised, new options are issued under our stock-based compensation plans or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. If all of the options outstanding under our 2009 Stock Plan as of February 28, 2014 were exercised, then our existing stockholders, including the holders of these options, would own 76.2% and our new investors would own 23.8% of the total number of shares of our common stock outstanding upon the closing of this offering. In such event, the total consideration paid by our existing stockholders, including the holders of these options, would be approximately \$139.3 million, or 53.7%, the total consideration paid by our new investors would be \$120.0 million, or 46.3%, the average price per share paid by our existing stockholders would be \$7.25, and the average price per share paid by our new investors would be \$20.00.

**Table of Contents****Selected financial data**

You should read the following selected financial data together with the section of this prospectus entitled "Management's discussion and analysis of financial condition and results of operations" and our financial statements and the related notes included in this prospectus. The statement of operations data for the years ended December 31, 2012 and 2013 and the balance sheet data as of December 31, 2012 and 2013 are derived from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected in the future.

|  | Year Ended<br>December 31,                         |             | Period from<br>December 10,<br>2008 (Date of<br>Inception) to<br>December 31, |
|--|--|-------------|---|
|  | 2012   | 2013        | 2013  |
|  | (in thousands, except share and per<br>share data) |             |   |
| Statement of Operations Data:  |  |             |   |
| Operating expenses:  |  |             |   |
| Research and development   | \$ 10,963  | \$ 14,855   | \$ 45,873   |
| General and administrative   | 1,936  | 4,428       | 10,141  |
| Total operating expenses   | 12,899   | 19,283      | 56,014  |
| Loss from operations   | (12,899)   | (19,283)    | (56,014)  |
| Interest income  |  | 1           | 3   |
| Interest expense   | (393)  | (128)       | (863)   |
| Other income (expense), net  | 75   | 913         | 2,030   |
| Net loss and comprehensive loss  | (13,217)   | (18,497)    | (54,844)  |
| Accretion of Series A convertible preferred stock to redemption value, net of extinguishment             |  |             | 1,098   |
| Net loss attributable to common stockholders   | \$ (13,217)  | \$ (18,497) | \$ (53,746)   |
| Net loss per common share, basic and diluted <sup>(1)</sup>  | \$ (114.71)  | \$ (41.10)  |   |
| Shares used to compute net loss per common share, basic and diluted <sup>(1)</sup>                       | 115,219  | 450,000     |   |
| Pro forma net loss per common share, basic and diluted <sup>(1)</sup> (unaudited)                        |  | \$ (1.99)   |   |
| Shares used to compute pro forma net loss per common share, basic and diluted <sup>(1)</sup> (unaudited) |  | 9,698,363   |   |

- (1) See Note 2 and Note 15 to our financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma net loss per share, basic and diluted, and the number of shares used in the computation of the per share amounts, which does not include any shares issued subsequent to December 31, 2013. The pro forma net loss per share, basic and diluted, also does not reflect the impact of the beneficial conversion feature on shares of convertible preferred stock issued during the three months ending March 31, 2014, which will have the effect of increasing our net loss per common share for the three months ending March 31, 2014.



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|                             | As of<br>December 31, |           |
|-----------------------------|-----------------------|-----------|
|                             | 2012                  | 2013      |
|                             | (in thousands)        |           |
| <b>Balance sheet data:</b>  |                       |           |
| Cash and cash equivalents   | \$ 329                | \$ 13,213 |
| Working capital (deficit)   | (4,745)               | 10,283    |
| Total assets                | 2,189                 | 14,683    |
| Total stockholders' deficit | (34,742)              | (47,292)  |

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### **Management's discussion and analysis of financial condition and results of operations**

*You should read the following discussion and analysis of our financial condition and results of operations together with the section of this prospectus entitled "Selected financial data" and our financial statements and related notes included elsewhere in this prospectus. This discussion and other parts of this prospectus contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, expectations and intentions. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section of this prospectus entitled "Risk factors."*

#### **Overview**

We are an endocrine-focused biopharmaceutical company initially developing our novel long-acting recombinant human growth hormone, VRS-317, for growth hormone deficiency, or GHD, an orphan disease. A key limitation to current recombinant human growth hormone, or rhGH, products is that they impose the burden of daily injections over multiple years, often resulting in poor compliance, which in turn can lead to suboptimal treatment outcomes in GHD patients. VRS-317 is intended to reduce the burden of daily treatment by requiring significantly fewer injections, potentially improving compliance and, therefore, treatment outcomes. We are currently conducting the Phase 2a stage of our pediatric GHD clinical trial in which we are evaluating weekly, semi-monthly and monthly dosing regimens. We have global rights to VRS-317 and, if VRS-317 is approved, given the highly concentrated prescriber base, we intend to commercialize it with our own specialty sales force in the United States and Canada, and potentially other geographies.

VRS-317 is a fusion protein consisting of rhGH and a proprietary half-life extension technology known as XTEN, which we in-license from Amunix Operating, Inc., or Amunix. Amunix has granted us an exclusive license under its patents and know-how related to the XTEN technology to develop and commercialize up to four licensed products, including VRS-317. Once we start commercializing a licensed product, we will owe to Amunix a royalty on net sales of the licensed products until the later of the expiration of all licensed patents or ten years from the first commercial sale in the relevant country. The royalty payable is one percent of net sales for the first two marketed products, but higher single-digit royalties are payable if we market additional products, or if we substitute one marketed product for another. If we elect to substitute one marketed product for another, in addition to royalties, we would also be required to make milestone and other payments totaling up to \$40 million per marketed product. See "Business Acquisitions and license agreements Amunix" for further information about our Amunix license agreement.

#### **Financial overview**

##### ***Summary***

We have not generated net income from operations, and, at December 31, 2013, we had an accumulated deficit of \$53.7 million, primarily as a result of research and development and general and administrative expenses. While we may in the future generate revenue from a variety of sources, including license fees, milestone payments and research and development payments in connection with potential future strategic partnerships, we have not yet generated any revenue. VRS-317 is at an early stage of development and may never be successfully developed or commercialized. Accordingly, we

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expect to incur significant and increasing losses from operations for the foreseeable future as we seek to advance VRS-317 into a Phase 3 clinical trial, and there can be no assurance that we will ever generate significant revenue or profits.

### ***Research and development expenses***

We recognize both internal and external research and development expenses as incurred. Our external research and development expenses consist primarily of:

the cost of acquiring and manufacturing clinical trial and other materials, including expenses incurred under agreements with contract manufacturing organizations;

expenses incurred under agreements with contract research organizations, investigative sites, and consultants that conduct our clinical trials and a substantial portion of our preclinical activities; and

other costs associated with development activities, including additional studies.

Internal research and development costs consist primarily of salaries and related fringe benefit costs for our employees (such as workers compensation and health insurance premiums), stock-based compensation charges, travel costs, and allocated overhead expenses.

We expect to continue to incur substantial expenses related to our development activities for the foreseeable future as we continue our Phase 2a clinical trial and prepare for a potential Phase 3 clinical trial. As product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials, we expect that our research and development expenses will increase substantially in the future.

### ***General and administrative expenses***

General and administrative expenses consist principally of personnel-related costs, professional fees for legal, consulting, audit and tax services, rent and other general operating expenses not otherwise included in research and development. We anticipate general and administrative expenses will increase in future periods, reflecting an expanding infrastructure, other administrative expenses and increased professional fees associated with being a public reporting company.

### ***Other income (expense), net***

Other income (expense), net is comprised of changes in the fair value of the convertible preferred stock warrant and call option liabilities.

### ***Critical accounting policies, significant judgments and use of estimates***

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. 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 expenses incurred during the reporting periods. Our estimates are based on our historical experience and on

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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. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

### ***Research and development expense***

Research and development costs are expensed as incurred. Research and development expense includes payroll and personnel expenses; consulting costs; external contract research and development expenses; and allocated overhead, including rent, equipment depreciation and utilities, and relate to both company-sponsored programs as well as costs incurred pursuant to reimbursement arrangements. Nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities are deferred and capitalized and recognized as an expense as the goods are delivered or the related services are performed.

As part of the process of preparing our financial statements, we are required to estimate our accrued research and development expenses. This process involves reviewing contracts and purchase orders, reviewing the terms of our license agreements, communicating with our applicable personnel to identify services that have been performed on our behalf, and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of actual cost. The majority of our service providers invoice us monthly in arrears for services performed. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. Examples of estimated accrued research and development expenses include fees to:

contract manufacturers in connection with the production of clinical trial materials;

contract research organizations and other service providers in connection with clinical studies;

investigative sites in connection with clinical studies;

vendors in connection with preclinical development activities; and

professional service fees for consulting and related services.

We base our expenses related to clinical studies on our estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and contract research organizations that conduct and manage clinical studies on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract, and may result in uneven payment flows and expense recognition. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual accordingly. Our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in our reporting changes in estimates in any particular period. To date, there have been no material differences from our estimates to the amount actually incurred. However, due to the nature of

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these estimates, we cannot assure you that we will not make changes to our estimates in the future as we become aware of additional information about the status or conduct of our clinical studies or other research activity.

### ***Stock-based compensation expense***

For the years ended December 31, 2012 and 2013, stock-based compensation expense was \$0.1 million and \$0.2 million, respectively. As of December 31, 2013, we had approximately \$1.5 million of total unrecognized compensation expense, which we expect to recognize over a weighted-average period of approximately 3.6 years. The intrinsic value of all outstanding stock options as of February 28, 2014 was approximately \$31.7 million based on a hypothetical common stock fair value of \$20.00 per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, of which approximately \$6.1 million related to vested options and approximately \$25.6 million related to unvested options. We plan to grant options to purchase an aggregate of approximately 255,000 shares of common stock concurrently with this offering and expect to continue to grant equity incentive awards in the future as we continue to expand our number of employees and seek to retain our existing employees, and to the extent that we do, our actual stock-based compensation expense recognized in future periods will likely increase. The stock-based compensation expense that we recognize in the first quarter of 2014 and each quarter thereafter through 2017 will be increased as a result of our determination to calculate that expense based on a deemed fair value of our common stock that is higher than the exercise price of certain stock options granted prior to this offering.

Stock-based compensation costs related to stock options granted to employees are measured at the date of grant based on the estimated fair value of the award, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option-pricing model. The grant date fair value of stock-based awards is recognized on a straight-line basis over the requisite service period, which is generally the vesting period of the award. Stock options we grant to employees generally vest over four years.

The Black-Scholes option-pricing model requires the use of highly subjective assumptions to estimate the fair value of stock-based awards. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per share of common stock could have been significantly different. These assumptions include:

Fair value of our common stock: Because our stock is not publicly traded, we must estimate its fair value, as discussed in Common stock valuations below.

Expected volatility: As we do not have a trading history for our common stock, the expected stock price volatility for our common stock was estimated by taking the average historical price volatility for industry peers based on daily price observations over a period equivalent to the expected term of the stock option grants. Industry peers consist of several public companies in the biopharmaceutical industry that are similar in size, stage of life cycle and financial leverage. We did not rely on implied volatilities of traded options in our industry peers common stock because the volume of activity was relatively low. We intend to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own common stock price becomes available, or unless circumstances change such that the identified companies are no longer similar to us, in which case, more suitable companies whose share prices are publicly available would be utilized in the calculation.

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Expected term: We do not believe we are able to rely on our historical exercise and post-vesting termination activity to provide accurate data for estimating the expected term for use in estimating the fair value-based measurement of our options. Therefore, we have opted to use the simplified method for estimating the expected term of options.

Risk-free rate: The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected time to liquidity.

Expected dividend yield: We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we used an expected dividend yield of zero.

See Note 10 to our financial statements included elsewhere in this prospectus for information concerning certain of the specific assumptions used in applying the Black-Scholes option-pricing model to determine the estimated fair value of employee stock options granted in 2012 and 2013. In addition to the assumptions used in the Black-Scholes option-pricing model, we must also estimate a forfeiture rate to calculate the stock-based compensation expense for our awards. We will continue to use judgment in evaluating the expected volatility, expected terms, and forfeiture rates utilized for our stock-based compensation expense calculations on a prospective basis.

### **Common stock valuations**

The estimated fair value of the common stock underlying our stock options was determined at each grant date by our board of directors and was supported by periodic independent third-party valuations. Our board of directors intended all options granted to be exercisable at a price per share not less than the per-share fair value of our common stock underlying those options on the date of grant. The valuations of our common stock were determined in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Practice Aid. The methodology used by the third-party valuation specialists to determine the fair value of our common stock included estimating the fair value of the enterprise, subtracting the fair value of debt from this enterprise value, and then allocating this value to all of the equity interests using the option pricing method or the probability weighted expected return method. The assumptions used in the valuation model to determine the estimated fair value of our common stock as of the grant date of each option are based on numerous objective and subjective factors, combined with management judgment, including the following:

independent third-party valuations as of February 15, 2012, January 7, 2013, December 5, 2013, December 31, 2013, January 30, 2014 and February 19, 2014;

progress of research and development activities;

our operating and financial performance, including our levels of available capital resources;

the valuation of publicly-traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;

rights and preferences of our common stock compared to the rights and preferences of our other outstanding equity securities;

equity market conditions affecting comparable public companies, as reflected in comparable companies' market multiples, initial public offering valuations and other metrics;

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the achievement of enterprise milestones, including our progress in clinical trials;

the likelihood of achieving a liquidity event for the shares of common stock, such as an initial public offering or an acquisition of our company given prevailing market and biotechnology sector conditions;

sales of our convertible preferred stock in arms-length transactions;

the illiquidity of our securities by virtue of being a private company;

business risks; and

management and board experience.

### *Common stock valuation methodologies*

The valuations were performed in accordance with applicable elements of the Practice Aid. The Practice Aid prescribes several valuation approaches for estimating the value of an enterprise, such as the cost, market and income approaches, and various methodologies for allocating the value of an enterprise to its common stock.

The Practice Guide identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each valuation date. In accordance with the Practice Guide, we considered the following methods:

**Option Pricing Method.** Under the option pricing method, or OPM, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the preferred and common stock are inferred by analyzing these options.

**Probability-Weighted Expected Return Method.** The probability-weighted expected return method, or PWERM, is a scenario-based analysis that estimates value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

Based on our early stage of development and other relevant factors, we determined that OPM was the most appropriate method for allocating our enterprise value to determine the estimated fair value of our common stock for valuations performed during May 2012 and January 2013.

Beginning in December 2013, we have used the PWERM methodology to determine the fair value of our common stock. Following the closing of this offering, the fair value of our common stock will be determined based on its closing price on NASDAQ.

### *Estimated fair value of convertible preferred stock warrant and call option liabilities*

We account for our convertible preferred stock warrant liabilities as freestanding warrants for shares that are puttable or redeemable. These warrants are classified as liabilities on our balance sheets and are recorded at their estimated fair value. At the end of each reporting period, changes in estimated fair value during the period are recorded as a component of other income (expense), net. We will continue to adjust these liabilities for changes in fair value until the earlier of the expiration of the warrants, exercise of the warrants, or conversion of the preferred stock underlying the warrants into common stock upon the completion of a liquidity event, including an initial public offering, at which time the liabilities will be reclassified to additional paid in capital.

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We estimate the fair values of our convertible preferred stock warrants using an option pricing model based on inputs as of the valuation measurement dates, including the fair value of our convertible preferred stock, the estimated volatility of the price of our convertible preferred stock, the expected term of the warrants and the risk-free interest rates.

We have determined that our obligation to issue, and our investors' obligation to purchase, additional shares of convertible preferred stock represent a freestanding financial instrument, which we account for as a call option. The freestanding convertible preferred stock call option liability is initially recorded at fair value, with fair value changes recognized as increases or reductions to other income (expense), net. At the time of the exercise of the call option, any remaining value of the option is recorded as a capital transaction.

### ***Income taxes***

We file U.S. federal income tax returns and California state tax returns. To date, we have not been audited by the Internal Revenue Service or any state income tax authority; however, all tax years remain open for examination by federal and state tax authorities. We use the liability method of accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial reporting and the tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. We assess the likelihood that the resulting deferred tax assets will be realized. A valuation allowance is provided when it is deemed more likely than not that some portion or all of a deferred tax asset will not be realized.

As of December 31, 2013, our total deferred tax assets were \$24.0 million. Due to our lack of earnings history and uncertainties surrounding our ability to generate future taxable income, the net deferred tax assets have been fully offset by a valuation allowance. The deferred tax assets were primarily comprised of federal and state tax net operating losses and tax credit carryforwards. Utilization of net operating losses and tax credit carryforwards may be limited by the ownership change rules, as defined in Section 382 of the Internal Revenue Code (any such limitation, a Section 382 limitation). Similar rules may apply under state tax laws. We have performed an analysis to determine whether an ownership change occurred from inception to December 31, 2013. Based on this analysis, management determined that we did experience historical ownership changes of greater than 50% during this period. Therefore, our ability to utilize a portion of our net operating losses and credit carryforwards is currently limited. However, these Section 382 limitations are not expected to result in a permanent loss of the net operating losses and credit carryforwards. As such, a reduction to our gross deferred tax asset for our net operating loss and tax credit carryforwards is not necessary prior to considering the valuation allowance. Since December 31, 2013, we may have experienced an ownership change under Section 382, or may experience an ownership change as a result of this offering, future offerings or other changes in the ownership of our stock. In such event, the amount of net operating losses and research and development credit carryovers useable in any taxable year could be limited and may expire unutilized.

**Table of Contents****Results of operations****Comparison of the years ended December 31, 2012 and 2013**

The following table summarizes our net loss during the periods indicated (in thousands, except percentages):

|                             | <b>Year Ended<br/>December 31,</b> |             | <b>Increase/<br/>(Decrease)</b> |                   |
|-----------------------------|------------------------------------|-------------|---------------------------------|-------------------|
|                             | <b>2012</b>                        | <b>2013</b> |                                 |                   |
| Operating expenses:         |                                    |             |                                 |                   |
| Research and development    | \$ 10,963                          | \$ 14,855   | \$ 3,892                        | 36%               |
| General and administrative  | 1,936                              | 4,428       | 2,492                           | 129               |
| Loss from operations        | (12,899)                           | (19,283)    | 6,384                           | 49                |
| Interest income             |                                    | 1           | 1                               |                   |
| Interest expense            | (393)                              | (128)       | (265)                           | (67)              |
| Other income (expense), net | 75                                 | 913         | 838                             | NM <sup>(1)</sup> |
| Net loss                    | \$ (13,217)                        | \$ (18,497) | \$ 5,280                        | 40%               |

(1) Not meaningful.

*Research and development expense*

Research and development expense increased \$3.9 million, or 36%, from \$11.0 million for 2012 to \$14.9 million for 2013. The increase in research and development expense was primarily due to a \$4.6 million increase in manufacturing costs related to the preparation for our Phase 2a clinical trial. The increase was partially offset by a \$0.6 million decrease in clinical trial costs. For the years ended December 31, 2012 and 2013, substantially all of our research and development expense related to our VRS-317 drug development activity.

*General and administrative expense*

General and administrative expense increased \$2.5 million, or 129%, from \$1.9 million for 2012 to \$4.4 million for 2013. The increase in general and administrative expense was primarily due to additional payroll, consulting, and professional services expenses incurred during the 2013 period as we prepare for a potential initial public offering.

*Interest expense*

Interest expense decreased \$0.3 million, from \$0.4 million for 2012 to \$0.1 million for 2013. The decrease in interest expense was primarily due to interest expense associated with the October 2012 Convertible Loan Agreement, which converted into Series B convertible preferred stock in January 2013.

*Other income (expense), net*

Other income (expense), net increased \$0.8 million, from \$0.1 million in income for 2012 to \$0.9 million in income for 2013. This increase was primarily due to a change in the fair value of the preferred stock call option liability associated with the Series C convertible preferred stock financing.

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of approximately \$1.0 million. Other income in 2012 was primarily attributable to the change in the fair value of \$0.1 million of the liability associated with the Series B convertible preferred stock financings in January and May 2012.

### ***Income taxes***

As of December 31, 2013, we had net operating loss carryforwards of approximately \$53.7 million that may offset future federal and state income taxes through 2033. Current federal and state tax laws include substantial restrictions on the utilization of net operating losses and tax credits in the event of an ownership change. Even if the carryforwards are available, they may be subject to annual limitations, lack of future taxable income, or future ownership changes that could result in the expiration of the carryforwards before they are utilized. At December 31, 2013, we recorded a 100% valuation allowance against our deferred tax assets of approximately \$24.0 million, as at that time our management believed it was uncertain that they would be fully realized. We have performed an analysis to determine whether an ownership change occurred from inception to December 31, 2013. Based on this analysis, management determined that we did experience historical ownership changes of greater than 50% during this period. Therefore, our ability to utilize a portion of our net operating losses and credit carryforwards is currently limited. However, these Section 382 limitations are not expected to result in a permanent loss of the net operating losses and credit carryforwards.

### **Liquidity, capital resources and plan of operations**

Since our inception and through December 31, 2013, we have financed our operations primarily through private placements of our equity securities and debt financing. During 2013, we received gross proceeds of \$30.5 million from the sale of convertible preferred stock. At December 31, 2013, we had cash and cash equivalents of \$13.2 million, a majority of which is invested in a money market fund at a highly rated financial institution. We expect to incur substantial expenditures in the foreseeable future for the development and potential commercialization of VRS-317 and any additional product candidates. Specifically, we have incurred and we expect to continue to incur substantial expenses in connection with our Phase 2a clinical trial and any Phase 3 clinical trial that we may conduct.

We will continue to require additional financing to develop our product candidates and fund operations for the foreseeable future. In February 2014, we received gross proceeds of \$65.0 million from the sale of convertible preferred stock, and we will continue to seek funds through equity or debt financings, collaborative or other arrangements with corporate sources, or through other sources of financing. Adequate additional funding may not be available to us on acceptable terms or at all. Our failure to raise capital as and when needed could have a negative impact on our financial condition and our ability to pursue our business strategies. We anticipate that we will need to raise substantial additional capital, the requirements of which will depend on many factors, including:

the rate of progress and cost of our clinical studies;

the timing of, and costs involved in, seeking and obtaining approvals from the FDA and other regulatory authorities;

the cost of preparing to manufacture VRS-317 on a larger scale;

the costs of commercialization activities if VRS-317 or any future product candidate is approved, including product sales, marketing, manufacturing and distribution;

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the degree and rate of market acceptance of any products launched by us or future partners;

the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;

our ability to enter into additional collaboration, licensing, commercialization or other arrangements and the terms and timing of such arrangements; and

the emergence of competing technologies or other adverse market developments.

If we are unable to raise additional funds when needed, we may be required to delay, reduce, or terminate some or all of our development programs and clinical trials. We may also be required to sell or license to others technologies or clinical product candidates or programs that we would prefer to develop and commercialize ourselves.

***Cash flows***

The following table sets forth the primary sources and uses of cash and cash equivalents for each of the periods presented below:

|  | <b>Year Ended<br/>December 31,</b> |             |
|--|------------------------------------|-------------|
|  | <b>2012</b>                        | <b>2013</b> |
|  | <b>(In thousands)</b>              |             |
| Net cash (used in) provided by:                      |                                    |             |
| Operating activities                                 | \$ (11,716)                        | \$ (17,090) |
| Investing activities                                 |                                    | (9)         |
| Financing activities                                 | 11,170                             | 29,983      |
| Net increase (decrease) in cash and cash equivalents | \$ (546)                           | \$ 12,884   |

***Cash used in operating activities***

Net cash used in operating activities was \$11.7 million and \$17.1 million in 2012 and 2013, respectively, which was primarily due to the use of funds in our operations related to the development of our product candidates. Cash used in operating activities in 2013 increased compared to 2012 primarily due to higher net loss from operations as we continued to increase our research and development expenditures to develop VRS-317 and due to additional general and administrative expenditures as we prepare for a potential initial public offering.

***Cash used in investing activities***

Cash used in investing activities consisted primarily of investment in equipment and an increase in restricted cash due to requirements under lease obligations.

***Cash provided by financing activities***

Cash provided by financing activities was \$30.0 million in 2013, compared to \$11.2 million in 2012. Cash provided by financing activities in both years consisted primarily of net proceeds from the issuance of convertible preferred stock plus proceeds from the issuance of convertible notes payable in 2012.

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As of February 28, 2014, we had cash and cash equivalents of approximately \$72.3 million, including the net proceeds we received from our convertible preferred stock financings in February 2014. We believe that our existing cash and cash equivalents will be sufficient to sustain operations for at least the next 12 months based on our existing business plan. If our Phase 2a and potential Phase 3 clinical trials are successful, we will need to raise additional capital in order to further advance our product candidates towards regulatory approval.

**Contractual obligations and commitments**

We have lease obligations consisting of an operating lease for our operating facility that commenced in October 2011 for approximately 5,740 square feet.

In the table below, we set forth our enforceable and legally binding obligations and future commitments at December 31, 2013, as well as obligations related to contracts that we are likely to continue, regardless of the fact that they were cancellable at December 31, 2013. Some of the figures that we include in this table are based on management's estimates and assumptions about these obligations, including their duration, the possibility of renewal, anticipated actions by third parties and other factors. Because these estimates and assumptions are necessarily subjective, the obligations we will actually pay in future periods may vary from those reflected in the table.

The following table summarizes our contractual obligations as of December 31, 2013:

|   | Less<br>than<br>1 year | Payments due by period |                                   |                  | Total     |
|---|------------------------|------------------------|-----------------------------------|------------------|-----------|
|   |                        | 1 to 3<br>years        | 4 to 5<br>years<br>(in thousands) | After 5<br>years |           |
| Lease obligations   | \$ 77                  | \$                     | \$                                | \$               | \$ 77     |
| Manufacturing related commitments <sup>(1)</sup>            | 4,144                  |                        |                                   |                  | 4,144     |
| Clinical trial and other related commitments <sup>(1)</sup> | 3,586                  | 2,008                  | 541                               |                  | 6,135     |
| Total   | \$ 7,807               | \$ 2,008               | \$ 541                            | \$               | \$ 10,356 |

(1) Includes cancellable amounts in the aggregate of approximately \$4.8 million.

We are obligated to make future payments to third parties under in-license agreements, including sublicense fees, royalties, and payments that become due and payable on the achievement of certain development and commercialization milestones. As the amount and timing of sublicense fees and the achievement and timing of these milestones are not probable and estimable, such commitments have not been included on our balance sheet or in the contractual obligations tables above.

**Off-balance sheet arrangements**

Since our inception, we have not engaged in any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

**JOBS Act accounting election**

The Jumpstart Our Business Startups Act of 2012, or the JOBS Act, permits an emerging growth company such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We are choosing to opt out of this provision.

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and, as a result, we will comply with new or revised accounting standards as required when they are adopted. This decision to opt out of the extended transition period under the JOBS Act is irrevocable.

### **Quantitative and qualitative disclosures about market risk**

The primary objective of our investment activities is to preserve our capital to fund our operations. We also seek to maximize income from our cash and cash equivalents without assuming significant risk. To achieve our objectives, we invest our cash and cash equivalents in money market funds. As of December 31, 2013, we had cash and cash equivalents of \$13.2 million consisting of cash and investments in a highly liquid U.S. money market fund. A portion of our investments may be subject to interest rate risk and could fall in value if market interest rates increase. However, because our investments are primarily short-term in duration, we believe that our exposure to interest rate risk is not significant and a 1% movement in market interest rates would not have a significant impact on the total value of our portfolio. We actively monitor changes in interest rates.

### **Controls and procedures**

A company's internal control over financial reporting is a process designed by, or under the supervision of, a company's principal executive and principal financial officers, or persons performing similar functions, and effected by a company's board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate. In connection with our preparation for this offering, we concluded that there was a material weakness in our internal control over financial reporting that caused the restatement of our previously issued financial statements as of and for the years ended December 31, 2012 and 2011 and for the period from inception (December 10, 2008) through December 31, 2012. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness that we identified was that we did not maintain a sufficient complement of resources with an appropriate level of accounting knowledge, experience and training commensurate with our company's structure and financial reporting requirements.

During the fourth quarter of 2013 and in preparation for this offering, we initiated various remediation efforts, including hiring additional resources with the appropriate public company and technical accounting expertise and taking other actions that are more fully described below. As such remediation efforts are still ongoing, we have concluded that the material weakness has not been remediated. Our remediation efforts to date have included the following:

*Addition of employee resources.* We are continuing to add appropriate resources to our finance team and are leveraging external consultants to facilitate accurate and timely accounting closes and to accurately prepare and review financial statements and related footnote disclosures. Our finance team has been expanded to include a Chief Financial Officer and a corporate controller, both with significant public company and biotechnology industry experience, and external consultants with significant financial and accounting technical experience.

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*Other actions to strengthen the internal control environment.* As a result of the additional resources added to the finance function, we are allowing for separate preparation and review of the reconciliations and other account analyses. In addition, these additional finance resources are allowing us to develop a more structured close process, including enhancing our existing policies and procedures, to improve the completeness, timeliness and accuracy of our financial reporting and disclosures including, but not limited to, those regarding proper financial statement classification, recognition of accruals to ensure proper period-end cutoff of expenses and assessing more judgmental areas of accounting.

The actions that have been taken are subject to continued review, supported by confirmation and testing by management as well as audit committee oversight. While we have implemented a plan to remediate this weakness, we cannot assure you that we will be able to remediate this weakness, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows. For additional information about this material weakness, see **Risk factors** **Risks related to this offering and the ownership of our common stock**. We have identified a material weakness in our internal control over financial reporting and may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate one or more material weaknesses or if we fail to establish and maintain effective control over financial reporting, our ability to accurately report our financial results could be adversely affected.

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### **Business**

#### **Overview**

We are an endocrine-focused biopharmaceutical company initially developing our novel long-acting recombinant human growth hormone, VRS-317, for growth hormone deficiency, or GHD, an orphan disease. A key limitation to current recombinant human growth hormone, or rhGH, products is that they impose the burden of daily injections over multiple years, often resulting in poor compliance, which in turn can lead to suboptimal treatment outcomes in GHD patients. Despite this limitation, global annual sales from currently marketed rhGH products have grown approximately 6% per year over the last five years, reaching over \$3 billion in 2012. Based on market research, we believe that the market for daily rhGH products is likely to grow to over \$4 billion by 2018. VRS-317 is intended to reduce the burden of daily treatment by requiring significantly fewer injections, potentially improving compliance and, therefore, treatment outcomes. Accordingly, we believe VRS-317 may take significant market share. Our first targeted indication for VRS-317 is pediatric GHD, which represents an approximately \$1.5 billion existing market opportunity. We are currently conducting the Phase 2a stage of our pediatric GHD clinical trial in which we are evaluating weekly, semi-monthly and monthly dosing regimens. We may develop VRS-317 for adult GHD, idiopathic short stature, or ISS, and Turner Syndrome, which together account for approximately 30% of the global rhGH market. We have global rights to VRS-317 and, if VRS-317 is approved, given the highly concentrated prescriber base, we intend to commercialize it with our own specialty sales force in the United States and Canada, and potentially other geographies.

GHD is a chronic disease with multiple causes that affects two distinct patient groups, pediatric patients and adult patients, although rhGH treatment options for the two groups are the same. Children with GHD typically have pathologic degrees of short stature, a tendency toward obesity, delayed and deficient mineralization of the skeleton, impaired growth of skeletal muscle and development of a high risk lipid profile. GHD during adulthood manifests as alterations in body composition, such as decreased lean and increased fat mass with skeletal demineralization, and causes adverse changes in cardiovascular outcome markers. Patients with untreated GHD also face increased mortality.

The current standard of care for GHD is daily subcutaneous injections of rhGH. Patients treated with rhGH to offset their lack of adequate endogenous growth hormone receive thousands of injections over the course of many years. In therapy-compliant GHD children, rhGH therapy initially promotes catch-up growth, enabling patients to approach or achieve heights on a standard growth curve, and thereafter permits them to maintain normal growth throughout the course of treatment. GHD children who are fully compliant with their daily treatments may attain an adult height comparable to that of their family members and national norms. In therapy-compliant GHD adults, daily subcutaneous injections of rhGH have resulted in improvements in body composition parameters, bone density, cardiovascular outcomes and quality of life.

Despite the demonstrated benefits of rhGH therapy, published studies have shown that a majority of patients on a daily rhGH regime, which requires up to 365 injections per year, are not fully compliant and fail to achieve expected treatment outcomes. For example, significant reductions in the degree of growth in pediatric GHD patients have been observed as a result of missing as few as two injections per week. As a result, pediatric endocrinologists have consistently sought a long-acting rhGH therapy to reduce the treatment burden on patients and their caregivers without compromising safety or efficacy. Importantly, other rhGH manufacturers have attempted to develop a long-acting

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product using microsphere, PEGylation, fusion and alternative delivery technologies. Each of these approaches has not been successful due to regulatory, safety, efficacy or manufacturing issues, or a combination thereof.

We believe VRS-317 will fulfill this significant need for a long-acting rhGH product. In our Phase 1a clinical trial, VRS-317 has demonstrated a half-life at least thirty times longer than daily rhGH and to date has shown a safety and tolerability profile comparable to that of marketed daily rhGH products. VRS-317, which is a new chemical entity, combines the same rhGH amino acid sequence utilized in currently approved rhGH products with a proprietary in-licensed half-life extension technology, XTEN, to enable less frequent administration. The XTEN technology is comprised of novel sequences of hydrophilic amino acids added at the genetic level as part of the manufacturing process. The resulting properties of VRS-317 enable us to produce it using common recombinant protein manufacturing techniques at a per-dose equivalent cost that we believe may be less than that of marketed rhGH products.

There are currently seven rhGH products marketed in the United States for the treatment of GHD, all of which require daily injections and include the same active agent, rhGH. We are pursuing the same regulatory pathway for VRS-317 followed by most of these products for pediatric GHD patients: a dose-finding study and a Phase 3 registration trial with a primary endpoint of twelve month mean height velocity. Mean height velocity refers to the mean height change of the individuals in a group over a specified time period. We are currently conducting and have completed enrollment in the Phase 2a stage of our Phase 1b/2a pediatric GHD clinical trial, which we designed to evaluate weekly, semi-monthly and monthly dosing of VRS-317. The primary efficacy endpoint in this Phase 2a stage is six month mean height velocity, and we expect to have complete six month mean height velocity data by June 2014. At VRS-317 doses equivalent to daily rhGH of approximately 30 µg rhGH/kg/day, repeat dosing of VRS-317 in the Phase 2a stage of the Phase 1b/2a study to date has been found to be safe and well tolerated in pre-pubertal GHD children and to maintain mean IGF-I increases over baseline and within the therapeutic range without IGF-I overexposure when given at weekly, semi-monthly and monthly intervals. Although not necessarily indicative of the final results in the trial, results to date in the Phase 2a stage of the Phase 1b/2a clinical trial of VRS-317 in GHD children suggest that VRS-317 has a comparable safety and efficacy profile to historical studies of daily rhGH administered at comparable doses. We also are conducting an extension trial to allow patients in the Phase 2a stage to continue to receive VRS-317, enabling determination of twelve month mean height velocity data prior to the initiation of our planned Phase 3 clinical trial and providing long-term data to support the filing of our New Drug Application, or NDA. Growth data from published studies of approved rhGH therapy products suggest that three, six and twelve month mean height velocities within the same cohort are well correlated within the same clinical trial. We believe this correlation is attributable to the fact that an individual's growth during a three month period represents a portion of that individual's growth during any longer subsequent period such as an additional three or nine months. In Phase 3 clinical trials of approved rhGH products, the mean height velocity in a cohort at twelve months was generally the primary endpoint used for approval of the dose used in the cohort.

In addition to pediatric GHD, we may study VRS-317 in adult GHD, ISS and Turner Syndrome, for which daily rhGH products are currently approved. We believe the adult GHD market is currently underpenetrated, yet it reached approximately \$450 million in revenues globally in 2012. We have completed a Phase 1a clinical trial in adult GHD patients that supports the potential for monthly dosing of VRS-317. ISS and Turner Syndrome also comprise significant segments of the remaining portion of the rhGH market and are likely potential indications for future VRS-317 clinical development.

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We have worldwide development and commercialization rights to VRS-317. If VRS-317 is approved, we believe it has the potential to capture a significant share of the existing rhGH market. We intend to market VRS-317 in the United States and Canada through a specialty sales force of approximately 50 people, targeting high prescribing pediatric endocrinologists. In Europe we may pursue a similar commercialization strategy or seek collaboration, distribution and/or marketing arrangements with third parties. In Japan, we may develop and commercialize VRS-317 ourselves, or may collaborate with third parties.

We are led by a team of experienced biotechnology industry executives and recognized experts in the treatment of GHD who bring significant capabilities in the development and commercialization of a novel long-acting rhGH therapy. Our management team is led by our co-founder and Chief Executive Officer, Jeffrey L. Cleland, Ph.D. Dr. Cleland led the development of the only FDA-approved long-acting rhGH product, Nutropin Depot®, while at Genentech, Inc., or Genentech. Our financial team is led by our Chief Financial Officer, Joshua T. Brumm, who has previously led finance teams for both emerging growth biotechnology and medical device companies, including Pharmacyclics, Inc. and ZELTIQ Aesthetics, Inc. Mr. Brumm has extensive commercial and operating experience in addition to having completed a number of financial and strategic transactions. Our clinical team is led by George Bright, M.D., Vice President of Medical Affairs, and Eric Humphriss, M.B.A., Vice President of Clinical Operations. Dr. Bright, a pediatric endocrinologist, has been treating children with GHD for more than 35 years and was a leader in the development of a daily rhGH product, Norditropin®, and a product for the treatment of insulin-like growth factor-I, or IGF-I, deficiency, Increlex®. Mr. Humphriss managed Genentech's pediatric GHD registry. Our manufacturing team is led by Patrick Murphy, who headed the team that manufactured the first rhGH product, Protropin®, while at Genentech.

### **Our strategy**

Our goal is to become a leading biopharmaceutical company focused on developing and commercializing therapeutics for the treatment of endocrine disorders. The key elements of our strategy are to:

*Complete the clinical development of and seek regulatory approval for VRS-317 for the treatment of GHD in children.* We are primarily focused on independently completing the clinical development of VRS-317 in children with GHD. Based on clinical trials conducted for other approved rhGH therapies, we believe that a dose-finding study and a Phase 3 registration trial with a primary endpoint of twelve month mean height velocity will be sufficient for approval of VRS-317. Upon successful completion of our Phase 1b/2a clinical trial, we plan to initiate in early 2015 the Phase 3 trial, which will be designed to demonstrate non-inferiority of VRS-317 compared to the current standard of care, daily rhGH injections, with twelve month mean height velocity as the primary efficacy endpoint. We currently expect that our planned Phase 3 trial will consist of two doses and/or dose regimens of VRS-317 with the possibility of approval of one or both. After initiation of our planned Phase 3 trial, we expect to report interim six month mean height velocity results followed by top line twelve month mean height velocity results.

*Commercialize VRS-317 independently in the United States with a specialty sales force, and identify a commercialization strategy in Europe to maximize our returns.* We believe that a long-acting product candidate like VRS-317, if approved for pediatric GHD, could take significant market share from currently marketed products, all of which require daily

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injections. Of the over \$3 billion and growing global rhGH market, we believe that sales of rhGH products for pediatric GHD currently represent approximately \$1.5 billion. We believe the United States and European markets for rhGH for pediatric GHD are currently approximately \$450 million and \$550 million, respectively. If VRS-317 receives marketing approval, we plan to commercialize it in the United States and Canada ourselves with a specialty sales force of approximately 50 people targeting high prescribing pediatric endocrinologists. In Europe, we may pursue a similar commercialization strategy or seek collaboration, distribution and/or marketing arrangements with third parties.

*Evaluate, either independently or in collaboration with third parties, the potential for VRS-317 to demonstrate superior efficacy versus daily rhGH in Japanese children.* We believe the Japanese market for rhGH for pediatric GHD is approximately \$450 million, representing approximately one third of the overall global market of rhGH products for treatment of pediatric GHD. In Japan, only a lower dose of daily rhGH (25 µg/kg/day) has been approved for the treatment of pediatric GHD, and treated children have a lower growth response than GHD children in the United States treated with a higher dose (43 µg/kg/day). VRS-317, if approved in Japan at the same dose as in the United States, may offer Japanese GHD children an opportunity to achieve similar height velocity to GHD children in the United States. In Japan, we may develop and commercialize VRS-317 ourselves, or we may collaborate with third parties. We anticipate that the data from our planned Phase 3 clinical trial could be used in combination with bridging and/or efficacy clinical trials in Japanese GHD children to obtain approval in Japan.

*Explore the use of VRS-317 in adult GHD, ISS and Turner Syndrome.* In addition to pursuing approval for VRS-317 in the approximately \$1.5 billion pediatric GHD market, we may develop the product candidate for one or more additional indications in the overall \$3 billion rhGH market. We believe the global sales of rhGH products for GHD adults are approximately \$450 million globally in 2012. A majority of these adult patients are non-compliant in their treatment. We believe that a therapy with more convenient dosing will expand the adult GHD market by encouraging patients not currently receiving rhGH therapy to seek treatment as well as enhancing compliance among patients currently receiving daily therapy. In our Phase 1a clinical trial in adult GHD patients, we demonstrated the potential for monthly dosing. The next step in clinical development for VRS-317 in adult GHD would be a Phase 2/3 clinical trial that would be comparable to historical approval trials for adult GHD. This trial would consist of a placebo controlled study evaluating the changes in body composition, such as fat mass or lean body mass, over twelve months of treatment. We may also explore other indications for VRS-317, such as ISS and Turner Syndrome, for which the burden of daily rhGH therapy significantly impacts compliance. We may consider initiating one or more trials in these additional indications to potentially expand the market for VRS-317.

*Opportunistically in-license or acquire products, product candidates or technologies useful in the treatment of endocrine disorders.* We plan to expand our product pipeline through opportunistically in-licensing or acquiring the rights to complementary products, product candidates and technologies for the treatment of endocrine disorders. We may seek additional licenses to develop the XTEN half-life extension technology for use with drugs that affect other endocrine disease targets. We expect that we will not generally engage in early stage research and drug discovery and will avoid the related costs and risks of these activities.

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**Growth hormone deficiency**

GHD is a chronic disease with multiple causes that can affect two distinct patient groups, pediatric patients and adult patients. The disease leads to significant health problems in both pediatric and adult patients, and untreated patients face increased mortality. There are currently seven marketed rhGH products in the United States for the treatment of GHD. However, a key limitation of these products is the burden of daily injections, which can limit compliance and lead to suboptimal treatment outcomes. As such, we believe that there is a significant unmet need for an improved therapeutic option for both pediatric and adult GHD patients.

***Pediatric GHD***

GHD in children is characterized by reduced growth performance and a loss of height as compared to a patient's age-matched peers. We estimate that approximately 80% of childhood cases are idiopathic, or of unknown cause. GHD may also result from congenital defects in the anatomy of the hypothalamus and pituitary, often associated with mutations in genes responsible for the differentiation and development of the cells in the pituitary that produce human growth hormone, or hGH, or the receptor for hGH releasing hormone. Other causes of GHD in children include traumatic brain injuries, neoplastic lesions of the central nervous system and/or the required surgical and/or radiation therapies, or side effects of some chemotherapy procedures.

In all cases, pediatric GHD is diagnosed based on several clinical parameters, including heights substantially below a normal growth curve range, a demonstration that hGH is deficient by two or more hGH stimulation tests or by frequent hGH sampling protocols, the ruling out of other potential causes of growth failure and, where required, genetic testing and/or magnetic resonance imaging, or MRI, of the brain, hypothalamus and pituitary.

Idiopathic GHD in children does not typically persist into adult life, while patients with organic causes of pediatric GHD often do experience adult GHD. Guidelines recommend that pediatric patients be treated until adult height is reached. In adulthood, pediatric GHD patients require additional screening to establish whether there is a need to undergo retreatment with rhGH. Research indicates that, depending upon the test group and screening methodology, up to 87.5% of adults with childhood onset GHD were no longer diagnosed as suffering from GHD upon retesting. As such, the prevalence for children and adults is separately estimated from literature studies and the total prevalence taken as the sum of childhood onset and adult onset cases.

The available data from the United States and European Union consistently estimate the prevalence of GHD in children as just below 3 per 10,000. One of the most comprehensive studies of the prevalence of GHD is the Utah Growth Study conducted in the early 1990s. This study estimated a prevalence of GHD in Utah school children of 1 in 3,480, which is equal to 2.87 per 10,000.

***Adult GHD***

Most cases of adult-onset GHD, a well-recognized clinical disorder, are related to the occurrence and treatment of pituitary adenomas or as a result of traumatic brain injuries. The diagnosis of adult GHD requires a demonstration of insufficient levels of hGH by hGH stimulation testing or frequent hGH sampling techniques, but GHD may be diagnosed in some adults by the finding of three other pituitary hormone deficiencies in combination with a low IGF-I level.

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The available data from the United States and European Union consistently estimate the prevalence of GHD in adults as approximately 1 per 10,000. The British Society of Endocrinology estimates the prevalence of adult-onset GHD as 1 in 10,000 in the United Kingdom, and we believe there is a similar prevalence in the United States.

Combining the GHD prevalence estimates in adults (1 in 10,000) and children (3 in 10,000) yields a combined GHD prevalence estimate of 4 in 10,000 in the United States and Europe.

### **Treatment goals and currently available therapies for GHD**

In GHD children, early treatment goals are the establishment of catch-up growth to decrease differences in height between the patient and similarly aged peers and preventing the accrual of additional deficits from untreated GHD. Long-term treatment goals extend to the attainment of heights comparable to family members and national norms and require approximately seven years for these goals to be achieved. Growth prediction models, based on treatment outcomes in large registries of GHD children, may be used to individualize rhGH dosing. In adults, the desired treatment outcomes are improvements in body composition parameters, skeletal mineralization to prevent osteopenia, metabolic and inflammatory markers to reduce cardio- and cerebrovascular disease, and quality of life.

Daily subcutaneous administration of rhGH is used as a replacement therapy for daily production of hGH to obtain these treatment goals. Administration of rhGH stimulates the production of IGF-I, which is important for the regulation of normal physiology. Daily rhGH therapy does not mimic the typical endogenous pulsatile release of hGH in normal healthy individuals, but daily injections of rhGH have been demonstrated for over 30 years to be a safe and effective therapy for treatment of GHD. In addition, clinical studies of continuous infusion of rhGH with a pump demonstrate comparable mean height velocity, IGF-I levels and safety to those observed with daily rhGH injections for six months. No other treatment modalities are known to be effective, and there are no known preventative therapies for GHD.

All currently marketed rhGH products in the United States Norditropin® (Novo Nordisk), Humatrope® (Eli Lilly), Nutropin-AQ® (Roche/Genentech), Genotropin® (Pfizer), Saizen® (Merck Serono), Tev-tropin® (Teva Pharmaceuticals) and Omnitrope (Sandoz GmbH) are administered by daily subcutaneous injections, and no major pharmacological differences are known to exist between these products with respect to safety or efficacy. The daily rhGH dose for these marketed products for the treatment of pediatric GHD ranges from 24 to 43 µg rhGH/kg/day. Despite approvals as early as 2006, biosimilars represented less than 13% of the market in 2012, even with initial price discounts of 20% to 25% relative to branded products. One biosimilar manufacturer has since abandoned its initial discounting strategy in favor of pricing and marketing strategies similar to those used by manufacturers of branded products. Manufacturers of the branded products continue to emphasize novel delivery methods and devices along with complimentary services in order to differentiate themselves from each other as well as to minimize the impact of any future biosimilars. Existing rhGH products are available as a lyophilized powder with diluents, or rhGH for injection using vial and syringe, auto-injectors or pen devices.

### ***Limitations of currently available therapies***

In order to achieve the benefits associated with the currently marketed daily subcutaneous injections of rhGH, patients must maintain strict dosing compliance. Studies from diverse geographic areas demonstrate that full compliance with daily rhGH dosing presents challenges for patients and

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caregivers and, as a result, doses are frequently missed. Because there is no immediately noticeable effect of treatment, as with insulin, for example, patients and caregivers may not perceive a detriment to skipping doses. Patients may also become noncompliant from dissatisfaction with near term treatment outcomes. In a study of children with GHD, 46% of patients missed two injections per week and 26% missed three or more injections per week. As shown in the figure below, for patients missing two or more injections per week there was a statistically significant reduction in their change in height velocity standard deviation score, or HVSDS, compared to high-compliance patients. A greater HVSDS indicates more rapid growth.

In additional studies, 33% to 77% of children had levels of noncompliance that can be estimated to have reduced efficacy as measured by first year height velocity. Although a similar study in GHD adults has not been reported, we believe there would be a comparable outcome of diminished therapeutic benefit. Continued treatment without substantial therapeutic benefit is not generally considered an acceptable approach, especially in the treatment of children with repeated subcutaneous injections. Accordingly, methods to increase treatment compliance, such as a significant reduction in frequency of injections, may have the therapeutic benefit of maintaining the efficacy observed for daily rhGH therapy in highly compliant GHD children and adults and improve treatment outcomes for those with poor compliance with daily injections. For example, enhanced clinical responsiveness has been demonstrated for long-acting forms of gonadotropin releasing hormone in fertility studies. Similarly, the relevant medical literature indicates that frequency of administration significantly affects patients' adherence to chronic treatments for a number of disorders. We believe that adherence to treatment can be improved with decreased frequency of administration.

Our approach to increased compliance and better therapeutic outcomes is to reduce the frequency of subcutaneous injections. In children in particular, we and others who have studied long-acting rhGH anticipate that reducing injection frequency may lead to increased treatment compliance, and in turn, better outcomes.

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**Attempts to develop long-acting rhGH products**

We believe that for a long-acting rhGH product to be successful, there should be minimal trade-offs compared to the current daily rhGH products when assessing safety, efficacy and manufacturing.

Previous attempts by others to develop a long-acting rhGH have not succeeded due to regulatory, safety, efficacy or manufacturing issues, or a combination of those factors. The only FDA-approved long-acting rhGH, Nutropin Depot, was developed by Genentech and approved in 1999. Nutropin Depot was dosed semi-monthly or monthly with a large gauge needle and caused significant pain on injection with nodule formation and lipoatrophy at the injection sites. Lipoatrophy is a localized loss of fat tissue that is stimulated by a sustained exposure of subcutaneous tissue to rhGH and can cause undesirable skin deformations. The efficacy of Nutropin Depot was less than the approved daily rhGH products because the duration of the rhGH release from the formulation was less than the dose interval. Nutropin Depot was ultimately removed from the market due to the significant resources required to continue manufacturing and commercializing the product. Additional attempts at sustained release formulations have not yet led to marketed products in the United States, Europe or Japan, due to regulatory, safety, efficacy and/or manufacturing issues. Three published attempts have been made at PEGylation of rhGH, which is a process to chemically attach polyethylene glycol to rhGH in order to extend its residence time in the bloodstream after administration. This residence time is commonly measured by half-life, which is the amount of time it takes for a quantity to decline to one-half its starting value. Pfizer first attempted PEGylation of rhGH to achieve a weekly dosed product. However, the PEGylated rhGH was not readily absorbed at the injection site and caused severe lipoatrophy in GHD children, resulting in a discontinuation of development. Another attempt to PEGylate rhGH by Novo Nordisk also failed in GHD children because a weekly profile was not achieved. Merck Serono in collaboration with Ambrx evaluated an alternative method of PEGylation, but the rights to the product candidate were returned to Ambrx after completion of a clinical trial in adults. The past attempts at long-acting rhGH have all had significant trade-offs that diminished their commercial potential.

**Attributes of VRS-317**

VRS-317 was engineered using XTEN technology to extend the residence time in the bloodstream by reducing the clearance of rhGH from the body by the two primary mechanisms, kidney filtration and receptor mediated clearance. XTEN technology was developed by Amunix Operating, Inc., or Amunix, and involves the use of novel sequences of natural hydrophilic amino acids that can be genetically fused to a desired protein, such as rhGH in the case of VRS-317. These novel sequences have been shown to be non-immunogenic and to enable the tuning of therapeutic protein properties to obtain the desired pharmacological properties in vivo. In VRS-317, a long N-terminal XTEN sequence, XTEN<sub>1</sub>, is added to rhGH as a fusion protein, increasing the hydrodynamic size of the rhGH and thereby reducing glomerular filtration. A C-terminal XTEN sequence, XTEN<sub>2</sub>, is also added to potentially reduce receptor mediated clearance by decreasing receptor binding. VRS-317 (119 kDa) has a molecular weight 5.4 times greater than rhGH (22 kDa). The difference in molecular weight is the result of the additional XTEN polypeptide chains, and no changes have been made to the rhGH sequence.

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VRS-317 is expressed as a soluble protein in the periplasm of the *E. coli* bacteria that are commonly used in the manufacture of biological molecules, or biologics. After isolation from the cells, VRS-317 is purified by a series of column chromatography steps, buffer exchanged and then concentrated to achieve the final bulk drug substance. VRS-317 is a clear aqueous solution manufactured for subcutaneous injection.

We believe VRS-317 has the following advantages that support its rapid development:

*VRS-317 has a longer half-life than daily rhGH products and may offer a significantly more convenient dosing solution for GHD patients.* VRS-317 has been shown in clinical development to have the advantage of a longer half-life and potentially less frequent dosing. In our clinical trial in adults with GHD, VRS-317 had a mean elimination half-life of 131 hours at the highest dose tested, representing at least a thirty-fold increase in half-life as compared to the two to four hour half-lives reported for subcutaneously administered rhGH. The prolonged half-life of VRS-317 provided sustained pharmacodynamic responses. In the Phase 2a stage of our Phase 1b/2a clinical trial, we are testing weekly, semi-monthly and monthly dosing. The long half-life of our product candidate, combined with the sustained IGF-I responses seen in clinical trials, supports our belief that VRS-317 should provide significantly more convenient dosing for GHD patients.

*VRS-317 has demonstrated an attractive safety and tolerability profile in GHD children.* In our clinical program to date, VRS-317 has been well-tolerated with no serious or unexpected adverse events. In particular, lipoatrophy, a localized loss of fat tissue that can be stimulated by a sustained exposure of adipocytes to rhGH in the subcutaneous injection site, has not been seen after repeated doses in our Phase 2a clinical trial. Additionally, there have been no reports in our clinical trials of VRS-317 of common problems that were observed in prior studies of long-acting formulations, such as nodule formation at the injection site. VRS-317's attractive safety and tolerability profile in GHD children is especially important in the context of rhGH as a chronic therapy.

*VRS-317 has the potential to achieve greater height velocities compared to daily rhGH approved for use in Japanese GHD children.* In Japan, children with GHD treated with daily rhGH receive the lowest dose of any developed country (the only approved dose in Japan is 25 µg/kg/day). As a result, GHD children treated with rhGH in Japan have a lower rate of first-year growth than GHD children treated with rhGH at 43 µg/kg/day in the United States. Despite the lower approved dose in Japan, the Japanese government pays a higher price per unit of rhGH and a similar price per patient as compared to pricing in the United States. We intend to select a dose of VRS-317 for use in Japan that would provide first-year growth comparable to GHD children in the United States. As such, VRS-317 may offer the opportunity to provide Japanese GHD children with height velocities comparable to GHD children in the United States, which would be superior efficacy to the current Japanese daily rhGH dose.

*VRS-317 has a manufacturing process that is less complex than the traditional rhGH manufacturing processes and may ultimately offer a cost-of-goods advantage versus current rhGH products.* VRS-317 is expressed in *E. coli* as a soluble protein. The XTEN amino acid sequences fused to rhGH to form VRS-317 confer improved pharmaceutical properties compared to rhGH alone, including greater solubility, a lower isoelectric point and a higher net negative charge. These improved properties enable a straightforward purification process without the need for complex steps that can reduce manufacturing yields, such as protein folding. The steps used

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in the process for manufacturing VRS-317 drug substance all involve a common biotechnology manufacturing process. VRS-317's improved properties simplify the purification process compared to traditional rhGH products, and we believe that when produced on a commercial scale, it may offer a cost-of-goods advantage over current rhGH products.

### **Clinical development for VRS-317**

The clinical development of VRS-317 was initiated in December 2010 with an Investigational New Drug, or IND, application submitted by Versartis in the United States and a parallel submission of a Clinical Trial Application in the United Kingdom. Additional submissions were provided to the Swedish and Serbian regulatory authorities. The first in-human study, our Phase 1a clinical trial, was conducted in GHD adults in the United States, the United Kingdom, Sweden and Serbia. The Phase 1a clinical trial enrolled patients on a stable dose of daily rhGH therapy who were withdrawn from therapy until their IGF-I levels were below a pre-specified level and then randomized into either placebo or VRS-317 treatment. This double blind placebo controlled Phase 1a clinical trial enabled the objective assessment of the safety of VRS-317 treatment compared to placebo. The Phase 1a clinical trial was completed in early 2012.

Upon the successful completion of the Phase 1a clinical trial, we initiated a Phase 1b/2a clinical trial in GHD children in the United States by filing an amendment to our existing IND. The Phase 1b stage of the clinical trial included 48 naïve to treatment pre-pubertal GHD children receiving a single dose of VRS-317 in an ascending dose design. The starting dose used in the study was the highest dose tested in adults (0.80 mg/kg VRS-317) and escalation was stopped at a dose of 6.0 mg/kg VRS-317 after the desired IGF-I response was achieved. No stopping criteria were met at any of the dose levels tested. Patients completing the Phase 1b stage of the study were allowed to enroll in the Phase 2a stage. The Phase 2a stage was fully enrolled with 64 patients, and patients previously treated in the Phase 1b stage were balanced for characteristics (age and previous VRS-317 exposure) with the potential to affect the primary endpoint (mean height velocity) across each of the three dosing arms.

### ***Completed Phase 1a clinical trial in GHD adults***

In adult GHD patients, VRS-317 concentrations and IGF-I responses were proportional to dose in the completed Phase 1a single ascending dose study. In adults with GHD, VRS-317 has a mean elimination half-life of 131 hours at the highest dose tested. The extended half-life of VRS-317 represents at least a thirty-fold increase in half-life as compared to the two to four hour half-lives reported for subcutaneously administered rhGH. VRS-317 concentrations at the end of the month in this study were proportional to total dose, further supporting the potential for up to monthly dosing.

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After a single subcutaneous dose of 0.80 mg/kg of VRS-317, GHD adults achieved a normalization of their IGF-I levels (IGF-I standard deviation score (SDS) between -1.5 and +1.5) for an average of three weeks. IGF-I SDS is a measure of the difference in IGF-I concentration between a single GHD patient and the mean for normal adults of the same sex and comparable age. The total rhGH dose equivalent to 0.80 mg/kg VRS-317 was 4.9 µg/kg/day over 30 days which is below the average daily dose of rhGH in these patients (6 µg/kg/day). These results suggested that a lower total rhGH dose in the form of VRS-317 may provide comparable safety and efficacy over the course of treatment.

All subjects completed the study. The highest dose assessed in the Phase 1a study of GHD adults (0.80 mg/kg VRS-317) was reported to be well tolerated, with no significant safety issues observed. A minority of patients reported drug-related adverse events, or AEs. The reported AEs were generally mild, transient and of the type generally expected when rhGH is administered to an adult with GHD. There were no serious or unexpected AEs. There were no laboratory safety signals observed. In addition, VRS-317 at 0.80 mg/kg in GHD adults increased mean IGF-I into the customary therapeutic range (IGF-I SDS > - 1.5) for approximately three weeks. We believe that these data indicate GHD adults may potentially be treated with once monthly administration of VRS-317. GHD adults are typically titrated to IGF-I SDS in the normal range and future trials of VRS-317 may include individual patient dose titration to achieve the appropriate monthly dose for each patient. These future trials are planned to demonstrate a safe and effective once monthly dose of VRS-317 in GHD adults.

### ***Completed Phase 1b stage of the Phase 1b/2a clinical trial in GHD children***

GHD children require a much higher dose of daily administered rhGH (24 - 43 µg/kg/day) than GHD adults (2 - 12 µg/kg). The dosing recommendation for rhGH in GHD children is dependent upon the local regulatory agency granting the drug approval. It is therefore likely that a higher dose of VRS-317 will be required in GHD children compared to GHD adults. A Phase 1b/2a study is being conducted in pre-pubertal GHD children in the United States to assess the safety, pharmacokinetics, and IGF-I responses to VRS-317 in the Phase 1b stage.

In the Phase 1b stage, 48 pre-pubertal, naïve to treatment children received a single subcutaneous dose of VRS-317. GHD was diagnosed by medical history, several clinical parameters and paired growth

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hormone stimulation tests. In ascending order, subjects received VRS-317 doses of 0.80, 1.20, 1.80, 2.70, 4.00 or 6.00 mg/kg. These doses were equivalent in rhGH content to 4.9 to 37 µg rhGH/kg/day taken for 30 days. Blood samples for pharmacokinetic/pharmacodynamic, or PK/PD, determinations were obtained at six time points over 30 days. Safety monitoring was carried out for 60 days post-dose. Stopping rules were specified by protocol. The membership and activities of the Safety Review Committee, or SRC, were specified in the SRC Charter, which was developed prior to study onset. SRC meetings were successfully concluded prior to each dose escalation; no stopping criteria were met at any time point.

In GHD children, single dose VRS-317 over the specified dose range was reported to be well tolerated, with no significant safety issues observed. All subjects completed the study. A minority of subjects reported drug-related AEs. Reported AEs were mild, transient and of the type generally observed when starting rhGH in children. No serious or unexpected AEs were reported. There were no laboratory safety signals observed. Subcutaneous nodule formation and lipoatrophy were not reported.

After subcutaneous administration to GHD children, VRS-317 is rapidly absorbed achieving a maximum concentration ( $C_{max}$ ) in three to four days after dosing, similar to that noted in GHD adults. The total exposure and  $C_{max}$  were dose proportional and not dependent upon gender in this patient population. Because sparse blood sampling is used in small children, the number of time points did not allow for an accurate determination of the terminal elimination half-life. However, as noted in GHD adults, significant concentrations of VRS-317 remained 30 days after injection.

IGF-I was selected as the primary pharmacodynamic marker to measure the effect of VRS-317 treatment. The normal range for IGF-I in children varies greatly with age, with mean values more than doubling during childhood. IGF-I SDS is determined based on comparison to children of the same age. All subjects had relative IGF-I deficiency at baseline (IGF-I SDS < -1.0) and the increase from baseline in the 30 day average IGF-I SDS was proportional to dose. Only two subjects had an IGF-I level above the normal range (IGF-I SDS > 2.0) and no subjects had an IGF-I SDS <sup>3</sup> 3.0. The two subjects with IGF-I SDS > 2.0 had IGF-I SDS values in the normal range by the next sampling time point. No reported safety issues arose in connection with these transient elevations. Sustained IGF-I SDS changes did not come at the expense of initial elevated exposure to IGF-I.

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***Ongoing Phase 2a stage of the Phase 1b/2a clinical trial***

The Phase 2a stage of the Phase 1b/2a study is currently ongoing. The Phase 2a portion of the study has completed enrollment with 64 naïve to treatment pre-pubertal GHD children entered into three dosing arms: 5 mg/kg VRS-317 once per month, 2.5 mg/kg VRS-317 semi-monthly, and 1.15 mg/kg VRS-317 weekly. All of these arms have the same rhGH mass dose, which is equivalent to approximately 30 µg rhGH/kg/day over the dose interval. Per protocol, upon completion of three months of treatment in 75% of the subjects in the Phase 2a stage of the trial, the SRC met and reviewed the safety of repeat dosing of VRS-317 in GHD children in this study. The SRC agreed that it was safe to continue the study and no stopping criteria were met. The primary endpoint of the Phase 2a stage is mean six month height velocity.

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At VRS-317 doses equivalent to daily rhGH of approximately 30 µg rhGH/kg/day, repeat dosing of VRS-317 in the Phase 2a stage of the Phase 1b/2a study to date has been found to be safe and well tolerated in pre-pubertal GHD children and to maintain mean IGF-I increases over baseline and within the therapeutic range without IGF-I overexposure when given at weekly, semi-monthly and monthly intervals. There have been no related serious adverse events or unexpected adverse events. Other related adverse events have been primarily mild and transient and of the type expected when rhGH is initiated in children naïve to rhGH treatment. With more than 1,000 injections administered to date, discomfort at injection sites has been reported in the minority of patients and has been mild and transient. Nodule formation or lipoatrophy has not been observed at injection sites. Peak IGF-I SDS levels have been the greatest with monthly dosing but did not exceed 3.0 and in only three cases transiently exceeded 2.0. Mean trough IGF-I SDS levels remained above baseline at Day 30 in all dosing groups. After two months of dosing, peak IGF-I levels were generally higher than after the first dose, suggesting that repeat VRS-317 dosing may augment IGF-I responses. As shown in the graph below, the mean annualized three month height velocities from 63 GHD children completing three months of treatment in the Phase 2a stage of the Phase 1b/2a study are comparable to the historical age-matched controls administered a comparable dose of daily rhGH (33 µg rhGH/kg/day). Although not necessarily indicative of the final results in the trial, results to date in the Phase 2a stage of the Phase 1b/2a clinical trial of VRS-317 in GHD children suggest that VRS-317 has a comparable safety and efficacy profile to historical studies of daily rhGH administered at comparable doses.

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***Correlation of three, six and twelve month mean height velocity***

For daily rhGH treatment, height velocity changes as a function of time spent on therapy. In a published study of Omnitrope and Genotropin, patients were dosed with rhGH over a seven year period. Patients on Genotropin were switched to Omnitrope after nine months of treatment (Geno/Omnitrope Group B). As shown in the chart below, initially, GHD children experience rapid catch-up growth in the first one to three years of treatment and then the rate of growth slows down approaching normal growth rates observed in children that do not have GHD.

The correlations between cumulative intervals of mean height velocity measurements have been noted in a variety of studies of daily rhGH therapy and one long-acting rhGH therapy, Nutropin Depot. For example, the mean height velocity in a treatment group over three months is well correlated to the mean height velocity in the same group over six months. Daily rhGH therapy studies have been conducted in pediatric GHD patients, measuring the mean height velocity at three, six and twelve months. These studies indicate an average decrease in the mean height velocity of 0.3 cm/yr from three months to six months and an additional decrease of 0.6 cm/yr from six months to twelve months.

The mean height velocity obtained in a controlled clinical trial is highly dependent on the demographics of the pediatric GHD patients enrolled in the clinical trial. The most significant factor determining a mean height velocity in naïve to treatment pre-pubertal GHD patients is the patient's age at start of treatment. Other factors that may influence the extent of response to daily rhGH therapy include the degree of height deficit for age and the hGH level achieved in the hGH stimulation test, both of which assess the severity of GHD. In historical published studies conducted in countries where rhGH therapy is unavailable or unaffordable, pre-pubertal GHD patients were more severely GHD than age matched peers in the United States, and therefore, greater mean height velocities were observed in these patients compared to their age-matched counterparts in the United States.

In published registries of daily rhGH therapy from patients in the United States and European countries where daily rhGH therapy is used, the mean height velocity is a reliable surrogate for expected outcomes in a controlled clinical trial using a comparable daily rhGH dose as used in these registries. As a result, an age-matched historical control analysis using published registry data on first year mean height velocities for daily rhGH therapy in pre-pubertal GHD children is a well-established procedure for assessment of new rhGH therapies. In fact, the FDA allowed the Nutropin Depot Phase 3 trial to be conducted using age-matched historical controls. We intend to conduct an analysis of age-matched historical controls to evaluate the mean height velocity results in our Phase 2a trial. However,

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the age-matched control may not predict exactly how VRS-317 will perform relative to existing rhGH products. In Phase 3, we plan to conduct a non-inferiority clinical trial in naïve to treatment pre-pubertal GHD patients using an approved dose of daily rhGH therapy as the control.

### ***Ongoing extension clinical trial***

The extension clinical trial is a multi-center, parallel dose, open-label study assessing long-term VRS-317 administration. It is enrolling patients completing the Phase 2a stage of our ongoing Phase 1b/2a study and will be open to patients completing our planned Phase 3 clinical trial in children with GHD. Patients are initially maintained on the same VRS-317 dosing regimen that they were receiving in their previous VRS-317 clinical trial (Phase 2a stage or Phase 3). Subjects may be assigned to a new dose or dosing regimen similar to the dose or dosing regimen that we expect to submit in any application for marketing authorization. Patients in a previous VRS-317 clinical trial that were not receiving VRS-317 treatment (e.g. receiving daily rhGH therapy) will be offered treatment with VRS-317 using the dosing regimen included in any application for marketing authorization. These patients could potentially provide data to support the safety of switching patients from daily rhGH to VRS-317 therapy. We expect the study to be conducted at approximately 70 pediatric endocrinology centers in the United States, Canada and Europe. The extension clinical trial may enroll up to 250 GHD children and we anticipate that it will continue until any potential product launch of VRS-317, with patients receiving up to three or four years of VRS-317 therapy. This study could potentially provide long term safety and efficacy data in support of any application for global market registration.

### ***Planned Phase 3 clinical trial***

We plan to conduct a Phase 3 clinical trial as a multicenter, open-label non-inferiority study comparing the safety and efficacy of VRS-317 to daily rhGH in children with growth failure due to GHD. We expect the study will be conducted at approximately 70 pediatric endocrinology centers in the United States, Europe and Canada. We expect the study will consist of approximately 160 naïve to treatment pre-pubertal GHD children using similar entry criteria to those employed in the Phase 1b/2a clinical trial.

We intend to meet with the FDA and the European Medicines Agency, or EMA, to discuss the Phase 3 clinical trial design. We plan to propose the non-inferiority design compared to daily rhGH with a primary endpoint of 12 month mean height velocity with a non-inferiority margin similar to those used to achieve recent approval of daily rhGH therapies such as Omnitrope. Although we are still developing our Phase 3 clinical protocol, we currently expect our Phase 3 trial to consist of two doses and/or dose frequencies of VRS-317 with the possibility of approval on one or both. Prior to initiating this study, we may have available twelve month mean height velocity data on GHD children completing the Phase 2a stage of the Phase 1b/2a trial and those enrolled in the extension clinical trial. We anticipate that the Phase 3 trial will initiate in early 2015. After initiation of our planned Phase 3 trial, we expect to report interim six month mean height velocity results by the end of 2016 followed by top line twelve month mean height velocity results in the first half of 2017. Assuming positive results from the planned Phase 3 trial, we intend to submit an NDA.

### ***Future studies***

#### ***Japan pediatric GHD bridging clinical trial***

We plan to conduct bridging and/or efficacy clinical trials in naïve to treatment pre-pubertal GHD children in Japan to demonstrate a comparable pharmacokinetic, pharmacodynamics, safety and

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efficacy profile to GHD children in the United States. We also intend to continue treatment of these patients in a long term study to evaluate their twelve month mean height velocity. The results from this study will be combined with the results of the Phase 1b/2a, extension and planned Phase 3 clinical trials for submission in Japan. We have had an informal meeting with the Japanese regulatory authorities to discuss the above clinical plan. We intend to either partner with a company with a substantial Japanese presence or contract with an in-country clinical research organization to execute this clinical plan. We may initiate a bridging clinical trial in Japanese pediatric endocrinology centers in early 2015.

***Adult GHD Phase 2/3 clinical trial***

Adult GHD patients receive daily rhGH therapy at doses that are titrated to enable them to reach the normal range of IGF-I levels for their age and sex. The daily rhGH dose used in adult GHD patients ranges from 2 to 12 µg/kg/day. The approval of rhGH therapy for adult GHD patients requires a primary endpoint of change in body composition (e.g., reduction in fat mass or increase in lean body mass) over twelve months of treatment compared to placebo. Depending on the success of our planned Phase 3 clinical trial with pediatric GHD patients, we may conduct a Phase 2/3 clinical trial in GHD adults. We anticipate that such Phase 2/3 clinical trial would be a placebo controlled study evaluating the changes in body composition, such as fat mass or lean body mass, over twelve months of treatment.

**rhGH market opportunity**

The global rhGH market has largely been confined to the developed parts of the world, more particularly the United States, Europe and Japan. In 2012, the global rhGH market was estimated to be over \$3 billion in annual sales, with the United States, Europe, Japan and Rest-of-World representing approximately 39%, 37%, 21% and 3% of the market, respectively. Global annual rhGH sales have historically grown by mid-single digit percentages each year, averaging approximately 6% over the last five years. Based on market research, we believe that the market for daily rhGH products is likely to grow to over \$4 billion by 2018.

As shown on the chart below, due to the lack of product differentiation among existing rhGH treatments, the global rhGH market is quite fragmented, with no brand achieving greater than 28% market share in 2012.

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Importantly, rhGH manufacturers have attempted to develop a long-acting product using microsphere, PEGylation, fusion and alternative delivery technologies. Each of these approaches has not been successful due to regulatory, safety, efficacy or manufacturing issues, or a combination thereof. Nonetheless, primary and secondary market research continues to indicate a strong desire by patients, caregivers, physicians and payers to use an rhGH product that is safe and effective and requires less frequent dosing than daily subcutaneous injections.

### ***Pediatric GHD market***

Historically pediatric GHD use has dominated the rhGH market, accounting for approximately 50% of total annual sales. Of the over \$3 billion global rhGH market, we believe that sales of rhGH products for pediatric GHD represent approximately \$1.5 billion. We believe the United States and European markets for rhGH for pediatric GHD are approximately \$450 million and \$550 million, respectively. We believe that the Japanese market for rhGH for pediatric GHD is approximately \$450 million, representing approximately one third of the global market of rhGH products for treatment of pediatric GHD.

Based on market research, we believe that the market for daily rhGH products is likely to grow to over \$4 billion by 2018. Based on this research and assuming that the pediatric GHD market continues to constitute 50% of the total market, we believe that the pediatric GHD market could represent approximately \$2.0 billion by 2018.

### ***Future market expansion opportunities for VRS-317***

After pediatric GHD, the remainder of the \$3 billion rhGH market consists of various indications, including adult GHD, ISS and Turner Syndrome. We may develop VRS-317 for one or more of these additional indications, for which existing rhGH therapies are approved.

### ***Adult GHD market***

Treatment of GHD in adults was a natural expansion to the products already indicated for treating the same condition in children. Several studies were conducted in this area during the 1990s and many companies publicized their findings with respect to the effect of hormonal deficiency in adults on their quality of life during this period. Many adult patients face significant problems such as minimized social, mental and physical energy, reduced muscle and excess adipose tissues, reduced libido, elevated levels of cholesterol, higher cardiovascular disease rates, reduced quality of life and lower bone density.

We believe the adult GHD market is currently underpenetrated, yet it reached approximately \$450 million in revenues globally in 2012. Despite its current size, the adult GHD market remains largely untreated, making this population of patients with significant unmet needs an attractive additional indication for VRS-317. We believe that a therapy with more convenient dosing will expand the adult GHD market by encouraging patients not currently receiving rhGH therapy to seek treatment, as well as enhancing compliance among patients currently receiving daily therapy.

### ***Other non-GHD pediatric indications***

Daily rhGH therapy is also currently approved for numerous other indications beyond GHD. More specifically, other indications currently approved in the United States for daily rhGH therapy include

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ISS, Turner Syndrome, Prader-Willi Syndrome, SGA, Noonan Syndrome and chronic renal insufficiency in children. ISS and Turner Syndrome comprise significant segments of the rhGH market and are likely potential indications for future VRS-317 clinical development. ISS is non-GHD short stature, defined by height that is more than two standard deviations below normal and growth rates that would not allow for attainment of adult height in the normal range, which has recognized benefits from rhGH therapy. In the United States only, ISS is an indication that is approved for rhGH therapy at the same dose as pediatric GHD. Turner Syndrome is the second most common genetic disorder, affecting 1 in 2,000 females. Short stature associated with Turner Syndrome is an approved indication for rhGH products. The rhGH dose required to treat short stature in Turner Syndrome patients is greater than the dose required for pediatric GHD patients. We may explore VRS-317 in further clinical trials to assess the appropriate dose of VRS-317 to achieve similar treatment outcomes to current daily rhGH therapy for ISS and Turner Syndrome.

### **Commercialization strategy**

Industry research published in 2008 indicated that less than 36% of patients on treatment with rhGH therapy are compliant, resulting in some level of noncompliance in the majority of patients. In separately published research released in 2011, a lack of compliance to daily rhGH therapy results in suboptimal therapeutic outcomes. Market research indicates that frequency of administration ranks highest amongst the factors that affect adherence to this daily rhGH treatment. Our own market research indicates that the potential for VRS-317 to reduce the treatment burden of daily injections and thereby address the lack of compliance with their rhGH therapy will be of significant interest to pediatric endocrinologists. Based on a third-party market research report commissioned by us, a survey of 68 U.S. pediatric endocrinologists indicated a high level of interest in the profile of VRS-317 and a willingness to prescribe it to a majority of their patients if it is approved.

In light of our stage of development, we have not yet established a commercial organization or distribution capabilities. We generally expect to retain commercial rights for our products in territories where we believe it is possible to access the market through a focused, specialty sales force. If VRS-317 receives marketing approval, we plan to commercialize in the United States with our own focused, specialty sales force. We believe that the pediatric endocrinologists in the United States, who provide treatment for hGH deficiency in children, are sufficiently concentrated that we will be able to effectively promote VRS-317 to these specialists with a sales force of approximately 50 people. According to data published by the Journal of Pediatrics and the Pediatric Endocrine Society, there are approximately 800 pediatric endocrinologists in the United States. Similarly sized sales forces are effectively being utilized to address these pediatric endocrinologists and focus on the currently high-prescribing physicians, according to primary market research conducted by a third-party market research organization commissioned by us.

### **Manufacturing**

We do not own or operate facilities for product manufacturing, storage and distribution, or testing nor do we expect to in the future. We currently rely, and expect to continue to rely, on Boehringer Ingelheim, or BI, for the manufacture of our drug substance and drug product for preclinical and clinical testing, as well as for commercial manufacture if our product candidate receives marketing approval. Additional contract manufacturers are used to label, package and distribute investigational drug product. We have experienced personnel to manage the third-party manufacturers.

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We have an agreement with BI for the production of VRS-317 drug substance and drug product for our clinical trials. Under the agreement, we transferred our initial manufacturing process for VRS-317, including the expressing cell line, to BI for further development, and BI will manufacture and supply VRS-317 to us for use in clinical trials, all in accordance with the project plan attached to the agreement. The agreement contains customary terms, such as delivery, inspection, acceptance and rejection, for the supply of the product. We have the right to cancel any manufacturing campaign for VRS-317 subject to the payment of a cancellation fee, which is a percentage of the total payment for the cancelled manufacturing campaign based on the time of cancellation. We have no exclusive relationship with BI for supply of our clinical materials. The agreement does not give BI any rights for commercial supply of VRS-317.

As of December 31, 2013, BI manufactures ten approved therapeutic proteins that are expressed in *E. coli*. VRS-317 is expressed in *E. coli* as a soluble protein. The XTEN sequences in VRS-317 confer improved pharmaceutical properties compared to rhGH alone. These properties include increased solubility and high net negative charge (low isoelectric point) at physiological pH enabling a straightforward purification process without the need for complex steps such as protein folding. The process for manufacturing VRS-317 drug substance consists of *E. coli* fermentation, initial purification to remove the majority of the *E. coli* components, secondary purification using three column chromatography steps and a final buffer exchange and concentration step. Because VRS-317 consists of rhGH genetically fused to XTEN, no additional steps to chemically modify the protein are required after the drug substance is produced. The VRS-317 drug substance is filtered and then VRS-317 drug product filling, labeling, packaging and testing is performed. Each of these steps involves a relatively common biotechnology process. The manufacturing process for VRS-317 is less complex than traditional rhGH manufacturing processes. The process is robust and reproducible, does not require specialized equipment, uses common and readily available materials and is readily transferable. The pharmaceutical properties of VRS-317 enable increased solubility compared to rhGH and increased stability due to the ability to reduce or eliminate the major degradation pathways typically observed in rhGH products. VRS-317 drug product is a stable liquid formulation stored refrigerated with short term stability at room temperature. We have contracted with Catalent, Inc. for the labeling, packaging and distribution of VRS-317 drug product for our clinical trials.

Under our agreement with BI, we obtain supplies and services on a purchase order basis from BI. The agreement may be terminated by either party for convenience upon 18 months' notice or earlier for certain scientific or technical reasons, material breach, bankruptcy, change of control or other business reasons. The VRS-317 used in our clinical trials was and is currently manufactured under current Good Manufacturing Practices, or cGMP, conditions. Sufficient material to complete the Phase 1b/2a and extension clinical trials has already been produced, and preparations are underway to produce quantities required for our anticipated subsequent clinical trials. When produced on a commercial scale, we expect that cost-of-goods-sold of VRS-317 will generally be less than that of other rhGH products. Changes in our requirements may require revalidation of the manufacturing process at a different scale and potentially at a different contractor depending on the necessary scale, infrastructure and technical capabilities. To ensure continuity in our supply chain, we plan to establish supply arrangements with alternative suppliers for certain portions of our supply chain, as appropriate.

The agreement assigns to us the ownership of all inventions and intellectual properties generated by BI that relate directly to VRS-317 and does not cover BI's background intellectual properties or improvements. In addition, upon expiration of the agreement or termination of the agreement by either party for convenience, or by us for business reasons or for BI's material breach, the agreement grants

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us a non-exclusive and royalty free license to use BI's background intellectual properties to the extent necessary for us to manufacture, use and exploit VRS-317. Upon termination of the agreement (other than for our breach or bankruptcy or technical reasons), BI will transfer to us the then-current manufacturing process for VRS-317, with the cost borne by us.

### **Research and development**

We are evaluating the use of the XTEN technology on another therapeutic protein. To date, we have not tested this additional product candidate in animals. We plan to demonstrate proof of concept in the appropriate animal models and assess the potentially differentiated product attributes that could provide us with a superior product candidate to the current therapeutic protein. We will explore whether to proceed, and the optimal development path and product profile, upon obtaining the validating preclinical data.

### **Competition**

The biotechnology and pharmaceutical industries are 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 major pharmaceutical, specialty pharmaceutical and biotechnology companies, generic drug companies, academic institutions and governmental agencies and public and private research institutions. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

The key competitive factors affecting the success of VRS-317, if approved, are likely to be its efficacy, safety, tolerability, frequency and route of administration, convenience and price, and the level of generic competition and the availability of coverage and reimbursement from government and other third-party payors. The method of administration of VRS-317, subcutaneous injection, is commonly used to administer rhGH therapy for the treatment of GHD and related indications. While daily rhGH therapy with subcutaneous injections is required for replacement therapy, a therapy that offers a less invasive method of administration might have a competitive advantage over one administered by subcutaneous injection, depending on the relative efficacy, safety and tolerability of the other method of administration.

In the United States, there are a variety of currently marketed rhGH therapies administered by daily subcutaneous injection and used for the treatment of GHD, principally Norditropin® (Novo Nordisk), Humatrope® (Eli Lilly), Nutropin-AQ® (Roche/Genentech), Genotropin® (Pfizer), Saizen® (Merck Serono), Tev-tropin® (Teva Pharmaceuticals) and Omnitrope® (Sandoz GmbH). These rhGH drugs are well-established therapies and are widely accepted by physicians, patients, caregivers and third-party payors as the standard of care for the treatment of GHD. Physicians, patients and third-party payors may not accept the addition of VRS-317 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 VRS-317; or

if they perceive the use of VRS-317 to be of limited additional benefit to patients.

In addition to the currently approved and marketed daily rhGH therapies, there are a variety of experimental therapies that are in various stages of clinical development by companies both already

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participating in the rhGH market as well as potential new entrants, principally Aileron Therapeutics, Althea, Ambrx, Ascendis, Bioton S.A., Critical Pharmaceuticals, Dong-A, GeneScience, Hanmi, LG Life Science, OPKO Health, Inc. (via Prolor acquisition) and all of the existing global and regional rhGH franchises. However, based on publicly available data, these products have limitations. For example, an alternative PEGylation approach of reversible chemical linkage of rhGH to a large circulating PEG, which has not completed studies in GHD children, has reported adult data suggesting that the rhGH exposure and IGF-I response is less than one week. We believe all of the PEGylation and circulating PEG approaches will be more expensive to manufacture than current daily rhGH because they require additional manufacturing steps after the purified rhGH is produced. A fusion protein approach is also under investigation using a glycosylated peptide hormone genetically fused to rhGH. Because of the glycosylation, this protein must be produced in mammalian cells, and a six step purification process has been reported. In addition, this fusion protein has been reported to have an rhGH exposure and IGF-I response of less than one week. This fusion protein is currently being studied in adult GHD Phase 3 clinical trial with weekly administration and in a Phase 2 clinical trial in children with weekly administration.

### **Intellectual property**

Our success depends, in part, upon our ability to protect our core technology. To establish and protect our proprietary rights, we rely on a combination of patents, patent applications, trademarks, copyrights, trade secrets and know-how, license agreements, confidentiality procedures, non-disclosure agreements with third parties, employee disclosure and invention assignment agreements, and other contractual rights.

In December 2008 we entered into a worldwide, exclusive license agreement with Amunix, which was amended and restated in December 2010 and subsequently amended in January 2013. The patents in-licensed under this agreement constitute the core of our intellectual property. The terms of this license are summarized below.

As of December 31, 2013, the in-licensed global patent portfolio consists of three issued United States patents and three issued patents in the European Patent Office, China and Mexico, respectively. In addition, the portfolio also includes 66 pending utility patent applications, 15 of which are in the United States, and of those 15, six of which are provisional patent applications that were filed in 2013.

The in-licensed patent portfolio includes five main patent families, which we believe, if issued in their current form, would provide broad coverage for the XTEN (unstructured recombinant polypeptide, URP) technology, including methods for producing XTEN products, and various levels of more specific coverage for VRS-317. The portfolio includes composition of matter, method of treatment and use claims.

The U.S. patents that have issued as of December 31, 2013 are U.S. Patent Nos. 7,855,279, 8,492,530 and 7,846,445. U.S. Patent Nos. 7,855,279 and 8,492,530 cover XTEN (URP) fusion proteins with increased half-life, including dependent claims directed to hGH-XTEN fusions. U.S. Patent No. 7,846,445 covers methods for extending the serum secretion half-life of a protein by producing XTEN fusions, including that of hGH. We estimate that the issued U.S. patents will expire between 2026 and 2027.

In addition, the licensor recently received Notices of Allowances on two patent applications covering XTEN fusions of biologically active proteins, including hGH, and pharmaceutical

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compositions comprising such fusions, as well as methods for treating growth hormone-related conditions, such as GHD and ISS. Upon issuance, we estimate that the U.S. patents will expire in 2030. A European patent that has been issued is currently being opposed by Novo Nordisk A/S and XL-protein GmbH. See **Risk factors** **Risks related to intellectual property** We may become involved in legal proceedings to protect or enforce our intellectual property rights, which could be expensive, time-consuming and unsuccessful.

The term of individual patents depends upon the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is generally 20 years from the earliest claimed filing date of a non-provisional patent application in the applicable country. In the United States, a patent's term may, in certain cases, be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over a commonly owned patent or a patent naming a common inventor and having an earlier expiration date. The Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, permits a patent term extension of up to five years beyond the expiration date of a U.S. patent as partial compensation for the length of time the drug is under regulatory review.

## **Acquisitions and license agreements**

### ***Amunix***

In December 2008 we entered into a worldwide, exclusive license agreement with Amunix, Inc., which was amended and restated in December 2010 and subsequently amended in January 2013. In March 2013, Amunix, Inc. was merged into Amunix Operating, Inc., or Amunix, which assumed all of the rights and obligations of Amunix, Inc. under the agreement. Under this agreement, Amunix granted us an exclusive (even as to Amunix) license under its patents and know-how related to the XTEN technology to develop and commercialize up to four licensed products for human use anywhere in the world, with each licensed product to consist of a selected target attached to an XTEN polypeptide. The license gives us rights with respect to two targets, namely hGH and another specified human protein. Certain of the licensed intellectual property was developed using government funding, and the exclusivity of our license is therefore subject to certain retained rights of the U.S. federal government. During the term of the agreement, which extends on a country-by-country basis until the later of the expiration of all licensed patents or ten years from the first commercial sale in such country, Amunix has exclusivity obligations to us. These obligations prohibit Amunix from using itself, or granting a license under, the patents and know-how related to the XTEN technology to exploit licensed products and selected targets that are, are derived from, have the same biological activity as, or are otherwise based on the licensed products and selected targets included in our exclusive license.

We are responsible for the development and commercialization of the licensed products under the agreement. Amunix has the right to terminate the agreement on a selected target-by-selected target basis if we do not use commercially reasonable efforts to develop and commercialize licensed products directed at such selected target, which requires that we use those efforts and resources used by a biotechnology company that is similarly situated for a product of similar market potential at a similar stage of its development or life. In addition to its right to terminate the agreement for our diligence failure, Amunix also has the right to terminate if we challenge any of the Amunix licensed patents.

If during any consecutive 18-month period our funding of research, development and commercialization activities with respect to licensed products directed at one of our selected targets is

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not at least \$250,000, Amunix has the right to terminate the agreement unless we pay an additional \$150,000 to Amunix to extend the 18-month period for an additional 24 months. Once we start commercializing a licensed product, we will owe to Amunix a royalty on net sales of the licensed products until the later of the expiration of all licensed patents or ten years from the first commercial sale in the relevant country. The royalty payable is one percent of net sales for the first two marketed products, but higher single-digit royalties are payable if we market additional products, or if we substitute one marketed product for another. If we elect to substitute one marketed product for another, in addition to royalties, we would also be required to make milestone and other payments totaling up to \$40 million per marketed product. Amunix may terminate this agreement if we fail to comply with our payment obligations. We have the right to terminate this agreement without cause at any time upon prior notice to Amunix.

Amunix prosecutes and maintains the licensed patents, at our expense with respect to those licensed patents that are primarily applicable to our licensed products, and at our partial expense with respect to those licensed patents of broader applicability; provided, that if Amunix decides to abandon a licensed patent, we may elect to continue prosecution and maintenance. We have the first right to prosecute and control any action for infringement related to any product that does, or may, compete with one of our marketed licensed products and any claim within a licensed patent that covers or relates to such marketed licensed product.

In addition to the license agreement described above, we also entered into a Services Agreement with Amunix in March 2013. Under the services agreement, we retained Amunix to perform certain research, development and other services related to the licensed products, on a project-by-project basis pursuant to statement of works that the parties may negotiate and execute from time to time. We will pay for Amunix's services on a full-time equivalent, or FTE, basis plus additional fees as may be agreed by the parties in the statement of work. New inventions arising out of the services performed by Amunix, and all associated intellectual property rights, are generally owned by Amunix. This services agreement or any statement of work may be terminated by either party for the other party's uncured material breach. We also have the right to terminate this services agreement or any statement of work without cause at any time upon prior notice to Amunix. If not terminated, this services agreement will continue until the expiration or termination of the license agreement. Termination of the services agreement does not result in termination of the license agreement.

## **Government regulation**

Government authorities in the United States, at the federal, state and local level, in the European Union and in other countries and jurisdictions extensively regulate, among other things, the research, development, testing, manufacture, including any manufacturing changes, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, import and export of pharmaceutical products such as those we are developing. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations, require the expenditure of substantial time and financial resources.

## ***U.S. drug approval process***

In the United States, the FDA regulates drugs under the federal Food, Drug, and Cosmetic Act, or FDCA, and implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations

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requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending NDAs, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement or civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's current good laboratory practice, or cGMP, regulations;

submission to the FDA of an IND which must become effective before human clinical trials may begin;

approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;

performance of adequate and well-controlled human clinical trials in accordance with current good clinical practices, or cGCP, to establish the safety and efficacy of the proposed drug or biological product for each indication;

submission to the FDA of an NDA;

satisfactory completion of an FDA advisory committee review, if applicable;

satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP, and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity; and

FDA review and approval of the NDA.

### ***Preclinical studies***

Preclinical studies include laboratory evaluation of product chemistry, toxicity and formulation, as well as animal studies to assess its potential safety and efficacy. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

### ***Clinical trials***

Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with cGCP requirements, which include the requirement that all research subjects provide their informed consent (assent, if applicable) in writing for their participation in any clinical trial. Clinical trials are conducted under protocols detailing,



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among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an institutional review board, or IRB, at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health, or NIH, for public dissemination on their ClinicalTrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

Phase 1: The drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.

Phase 2: The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.

Phase 3: The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients.

### ***Marketing approval***

Assuming successful completion of the required clinical testing, the results of the preclinical and clinical studies, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. In most cases, the submission of an NDA is subject to a substantial application user fee. Under the new Prescription Drug User Fee Act, or PDUFA, guidelines that are currently in effect, the FDA has a goal of ten months from the date of the FDA's acceptance for filing of a standard non-priority NDA to review and act on the submission.

The FDA also may require submission of a risk evaluation and mitigation strategy, or REMS, plan to mitigate any identified or suspected serious risks. The REMS plan could include medication guides, physician communication plans, assessment plans and elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit

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substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective and the facility in which it is manufactured, processed, packaged or held meets standards designed to assure the product's continued safety, quality and purity. The FDA is required to refer an application for a novel drug to an advisory committee or explain why such referral was not made. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and 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 facility or facilities where the product is manufactured, which is not under the control of the product sponsor. The FDA will not approve an application 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 will typically inspect one or more clinical sites to assure compliance with cGCP.

The testing and approval process requires substantial time, effort and financial resources, and each may take several years to complete. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all.

If the FDA's evaluation of the NDA and inspection of the manufacturing facilities are favorable, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing in order for FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

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### ***Post-approval requirements***

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies to determine compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend significant time, money and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;

finest, warning letters or holds on post-approval clinical trials;

refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;

product seizure or detention, or refusal to permit the import or export of products; or

injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label, although doctors may prescribe drugs for off-label purposes.

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The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, or PDMA, which regulates the distribution of drugs and drug samples at the federal level, and sets minimum standards for the registration and regulation of drug distributors by the states.

### ***Hatch-Waxman exclusivity***

Market and data exclusivity provisions under the FDCA can delay the submission or the approval of certain applications for competing products. The FDCA provides a five-year period of non-patent data exclusivity within the United States 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 Abbreviated New Drug Application, or ANDA, or a 505(b)(2) NDA submitted by another company that references the previously approved drug. However, an ANDA or 505(b)(2) NDA may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA or 505(b)(2) 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, strengths or dosage forms of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and, as a general matter, does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for generic versions of the original, unmodified drug product. 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 preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

### ***Orphan drug designation and exclusivity***

VRS-317 has received orphan drug designation for the treatment of GHD in the European Union at any dosing regimen less frequent than daily, as well as in the United States at once-a-month dosing.

In the United States, the Orphan Drug Act provides incentives for the development of products intended to treat rare diseases or conditions. Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biological product intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making a drug or biological product available in the United States for this type of disease or condition will be recovered from sales of the product. If a sponsor demonstrates that a drug is intended to treat rare diseases or conditions, the FDA will grant orphan designation for that product for the orphan disease indication. Orphan designation must be requested before submitting an NDA. After the FDA grants orphan product designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation, however, does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

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Orphan drug designation provides manufacturers with research grants, tax credits, and eligibility for orphan drug exclusivity. If a product that has orphan drug designation subsequently receives the first FDA approval of the active moiety for that disease or condition for which it has such designation, the product is entitled to orphan drug exclusivity, which for seven years prohibits the FDA from approving another product with the same active ingredient for the same indication, except in limited circumstances. If a drug designated as an orphan product receives marketing approval for an indication broader than the orphan indication for which it received the designation, it will not be entitled to orphan drug exclusivity. Orphan exclusivity will not bar approval of another product under certain circumstances, including if a subsequent product with the same active ingredient for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care, or if the company with orphan drug exclusivity is not able to meet market demand. Further, the FDA may approve more than one product for the same orphan indication or disease as long as the products contain different active ingredients. Moreover, competitors may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity.

In the European Union, the EMA's Committee for Orphan Medicinal Products, or COMP, grants orphan drug designation to promote the development of products that are intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions affecting not more than 5 in 10,000 persons in the European Union community. Additionally, designation is granted for products intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition and when, without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the drug.

In the European Union, orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity is granted following drug approval. This period may be reduced to six years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

Orphan drug designation must be requested before submitting an application for marketing approval. Orphan drug designation does not convey any advantage in, or shorten the duration of the regulatory review and approval process.

### ***New legislation and regulations***

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the testing, approval, manufacturing and marketing of products regulated by the FDA. In addition to new legislation, FDA regulations and policies are often revised or interpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether further legislative changes will be enacted or FDA regulations, guidance, policies or interpretations will be changed, or what the impact of such changes, if any, may be.

### ***Foreign regulation***

In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality,

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safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of our products. The cost of establishing a regulatory compliance system for numerous varying jurisdictions can be very significant. Whether or not we obtain FDA approval for a product, we would need to obtain the necessary approvals by the comparable foreign regulatory authorities before we can commence clinical trials or marketing of the product in foreign countries and jurisdictions. Although many of the issues discussed above with respect to the United States apply similarly in the context of the European Union, the approval process varies between countries and jurisdictions and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others.

Pursuant to the European Clinical Trials Directive, a system for the approval of clinical trials in the European Union has been implemented through national legislation of the member states. Under this system, we must obtain approval from both the competent national authority of a European Union member state in which the clinical trial is to be conducted, and a favorable opinion from the competent ethics committee. Our clinical trial application must be accompanied by an investigational medicinal product dossier with supporting information prescribed by the European Clinical Trials Directive and corresponding national laws of the member states and further detailed in applicable guidance documents.

To obtain marketing approval of a drug under European Union regulatory systems, we may submit a Marketing Authorization Application, or MAA, either under a centralized or decentralized procedure. The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid for all European Union member states. The centralized procedure is compulsory for specific products, including medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy products and products with a new active substance indicated for the treatment of certain diseases. For products with a new active substance indicated for the treatment of other diseases and products that are highly innovative or for which a centralized process is in the interest of patients, the centralized procedure may be optional. Under the centralized procedure, the Committee for Medicinal Products for Human Use, or the CHMP, established at the EMA is responsible for conducting the initial assessment of a drug. The CHMP also is responsible for several post-authorization and maintenance activities, such as the assessment of modifications or extensions to an existing marketing authorization. Under the centralized procedure in the European Union, the maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops, when additional information or written or oral explanation is requested by the CHMP but has not yet been provided. Accelerated evaluation might be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and in particular from the viewpoint of therapeutic innovation. In this circumstance, the EMA ensures that the opinion of the CHMP is given within 150 days.

The decentralized procedure is available to applicants who wish to market a product in various European Union member states where such product has not previously received marketing approval in any European Union member state. The decentralized procedure provides for approval by one or more other, or concerned, member states of an assessment of an application performed by one member state designated by the applicant, known as the reference member state. Under this procedure, an applicant

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submits an application based on identical dossiers and related materials, including a draft summary of product characteristics, and draft labeling and package leaflet, to the reference member state and concerned member states. The reference member state prepares a draft assessment report and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the reference member state's assessment report and related materials, each concerned member state must decide whether to approve the assessment report and related materials.

If a member state cannot approve the assessment report and related materials on the grounds of potential serious risk to public health, the disputed points are subject to a dispute resolution mechanism and may eventually be referred to the European Commission, whose decision is binding on all member states.

In the European Union, new chemical entities qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity. This data exclusivity, if granted, prevents regulatory authorities in the European Union from referencing the innovator's data to assess a generic (abbreviated) application for eight years, after which generic marketing authorization can be submitted, and the innovator's data may be referenced, but not approved for two years. The overall ten-year period will be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity and the sponsor is able to gain the prescribed period of data exclusivity, another company nevertheless could also market another version of the drug if such company can complete a full MAA with a complete database of pharmaceutical test, preclinical tests and clinical trials and obtain marketing approval of its product.

### ***Pharmaceutical coverage, pricing and reimbursement***

Significant uncertainty exists as to the coverage and reimbursement status of any drug products for which we may obtain regulatory approval. Sales of any of our product candidates, if approved, will depend, in part, on the extent to which the costs of the products will be covered by third-party payors, including government health programs such as Medicare and Medicaid, commercial health insurers and managed care organizations. The process for determining whether a third-party payor will provide coverage for a drug product typically is separate from the process for setting the price of a drug product or for establishing the reimbursement rate that a payor will pay for the drug product once coverage is approved. Third-party payors may limit coverage to specific drug products on an approved list, also known as a formulary, which might not include all of the approved drugs for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable regulatory approvals. Whether or not we conduct such studies, our product candidates may not be considered medically necessary or cost-effective. A third-party payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Third party reimbursement may not be sufficient to enable us to maintain price levels high enough to realize an appropriate return on our investment in product development.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of drugs have been a focus in this effort. Third-party payors are

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increasingly challenging the prices charged for medical products and services, examining the medical necessity and reviewing the cost-effectiveness of drug products and medical services and questioning safety and efficacy. If these third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after FDA approval or, if they do, the level of payment may not be sufficient to allow us to sell our products at a profit. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost-containment programs to limit the growth of government-paid healthcare costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. Adoption of such controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceuticals such as our drug product candidates and could adversely affect our net revenue and results.

Pricing and reimbursement schemes vary widely from country to country. Some countries provide that drug products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies. For example, the European Union provides options for its member states to restrict the range of drug products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a drug product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the drug product on the market. Other member states allow companies to fix their own prices for drug products, but monitor and control company profits. The downward pressure on healthcare costs in general, particularly prescription drugs, has become intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert competitive pressure that may reduce pricing within a country. Any country that has price controls or reimbursement limitations for drug products may not allow favorable reimbursement and pricing arrangements for any of our products.

The marketability of any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on drug pricing. Coverage policies, third-party reimbursement rates and drug pricing regulation may change at any time. In particular, the Patient Protection and Affordable Care Act of 2010, as amended by the Health Care and Education Reconciliation Act of 2010, which we collectively refer to as the Affordable Care Act or ACA, contains provisions that have the potential to substantially change healthcare financing, including impacting the profitability of drugs. For example, the Affordable Care Act revised the methodology by which rebates owed by manufacturers to the state and federal government for covered outpatient drugs under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations and subjected manufacturers to new annual fees and taxes for certain branded prescription drugs. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

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### ***Healthcare law and regulation***

Healthcare providers, physicians and third-party payors play a primary role in the recommendation and prescribing of any product candidates for which we may obtain marketing approval. Our business operations and arrangements with investigators, healthcare professionals, consultants, third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we research, market, sell and distribute our products that obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations, include, but are not limited to, the following:

the federal healthcare Anti-Kickback Statute prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service, for which payment may be made, in whole or in part, under a federal healthcare program such as Medicare and Medicaid;

the federal false claims laws and civil monetary penalties law impose penalties and provide for civil whistleblower or qui tam actions against individuals or entities for, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment or approval that are false or fraudulent or making a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government;

the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, among other things, imposes criminal liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes certain obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information without written authorization;

the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;

the federal transparency requirements under the Affordable Care Act will require manufacturers of drugs, devices, biologics and medical supplies to report to the U.S. Department of Health and Human Services, or HHS, information related to payments and other transfers of value to physicians and teaching hospitals and certain physician ownership and investment interests; and

analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, that may apply to our business operations, including our sales or marketing arrangements, and claims involving healthcare items or services reimbursed by governmental third-party payors, and in some instances, also such claims reimbursed by non-governmental third-party payors, including private insurers.

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Some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other healthcare providers or marketing expenditures. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and/or administrative penalties, damages, fines, disgorgement, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business are found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

## **The Foreign Corrupt Practices Act**

The Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

## **Employees**

As of February 28, 2014, we had 14 full-time employees, including six employees engaged in research and development. None of our employees is represented by a labor union or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

## **Facilities**

Our principal facilities consist of office space in Redwood City, California. We occupy approximately 5,740 square feet of office space under a lease that expires in April 2014. We do not intend to renew our lease for this office space and believe that replacement office space is available on commercially reasonable terms. In March 2014, we entered into a new lease to occupy approximately 12,900 square feet of office space in Menlo Park, California.

## **Legal proceedings**

We are not currently subject to any material legal proceedings.

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The following table sets forth information regarding our executive officers and directors as of December 31, 2013:

| <b>Name</b>                                      | <b>Age</b> | <b>Position</b>   |
|--|------------|---|
| Jeffrey L. Cleland, Ph.D.                        | 49         | President, Chief Executive Officer, Co-founder and Director |
| Joshua T. Brumm                                  | 36         | Chief Financial Officer                                     |
| Paul Westberg                                    | 45         | Senior Vice President, Business Development                 |
| Jay P. Shepard <sup>(1)(3)</sup>                 | 55         | Chairman of the Board of Directors                          |
| Srinivas Akkaraju, M.D., Ph.D. <sup>(1)(3)</sup> | 45         | Director  |
| Francesco De Rubertis, Ph.D., C.F.A.             | 43         | Director  |
| Michael Dybbs, Ph.D. <sup>(1)</sup>              | 39         | Director  |
| Edmon R. Jennings <sup>(2)(3)</sup>              | 66         | Director  |
| Shahzad Malik <sup>(1)</sup>                     | 46         | Director  |
| Anthony Y. Sun, M.D. <sup>(2)</sup>              | 41         | Director  |
| John Varian <sup>(2)</sup>                       | 54         | Director  |

(1) Member of the compensation committee

(2) Member of the audit committee

(3) Member of the nominating and corporate governance committee

*Jeffrey L. Cleland, Ph.D.* Jeffrey L. Cleland, Ph.D. is our co-founder and has served as our President and Chief Executive Officer and as a director since May 2009. Dr. Cleland also co-founded Diartis Pharmaceuticals, Inc., a biopharmaceutical company, and served as its Chief Executive Officer and a director from its inception in December 2010 until March 2013. Prior to joining us, Dr. Cleland served as Vice President of Therapeutic Development at BaroFold Inc., a company applying its Pressure Enabled Protein Manufacturing Technology (PreEMT™) to transform inclusion body refolding and improve the efficacy and safety of a wide variety of protein therapeutics for its industry partners, from 2007 to April 2009, as Senior Director of Product Development at Telik, Inc. from 2005 to 2007, as Vice President of Technical Operations at Novacea, Inc., a biopharmaceutical company focused on in-licensing, developing and commercializing novel therapies for the treatment of cancer that merged with Transcept Pharmaceuticals, Inc. in 2008, from 2003 to 2005, as president of Pharmaceutical Development, Manufacturing & Delivery Consultants, a pharmaceutical and biotechnology consulting group that he founded, and as Vice President of Research and Development for Targesome Inc., a biopharmaceutical company engaged in the development of proprietary receptor-targeted nanoparticles to diagnose and treat cancer and other diseases, from 2002 to 2003. Dr. Cleland also served in various roles at Genentech, Inc. from 1991 to 2002, including as a Project Team Leader. Dr. Cleland is currently an adjunct assistant professor at University of the Pacific, University of Kansas and University of Colorado. Dr. Cleland also has been a member of numerous professional societies, including the Controlled Release Society, American Chemical Society, American Institute of Chemical Engineers and American Association for the Advancement of Science. Dr. Cleland holds a B.S. in Chemical Engineering from the University of California, Davis and a Ph.D. in Chemical Engineering from the Massachusetts Institute of Technology. We believe Dr. Cleland is able to make valuable contributions

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to our board of directors due to his extensive knowledge of our company, the rhGH industry and our competitors, and as a co-founder, significant stockholder and our Chief Executive Officer.

*Joshua T. Brumm.* Joshua Brumm has served as our Chief Financial Officer since November 2013. Prior to joining us, Mr. Brumm served as Executive Vice President of Finance at Pharmacylics, Inc., a biopharmaceutical company focused on developing and commercializing innovative small-molecule drugs for the treatment of cancer and immune mediated diseases, from August 2012 to August 2013. Prior to joining Pharmacylics, Mr. Brumm served in various roles at ZELTIQ Aesthetics, Inc., a medical technology company focused on developing and commercializing products utilizing its proprietary controlled-cooling technology platform, from December 2009 to August 2012, including Senior Vice President and Chief Financial Officer, Vice President of Corporate Development and Investor Relations, Senior Managing Director of International Sales and Director of Corporate Development and Strategy. Mr. Brumm also served as Director of Finance at Proteolix, Inc., a biotechnology company dedicated to discovering, developing and commercializing novel therapeutics that target protein degradation pathways for cancer and autoimmune diseases, from March 2009 until it was acquired by Onyx Pharmaceuticals in December 2009. Prior to joining Proteolix, Mr. Brumm held the position of Investment Banking Associate as a member of the West Coast Healthcare Team at Citigroup Global Markets, Inc. from June 2007 to March 2009. Mr. Brumm also founded Nu-Ag Distributing, LLC, an agricultural sales and consulting company, and served as Nu-Ag Distributing's Chief Executive Officer until its sale in June of 2007. Mr. Brumm holds a B.A. in Business Administration from the University of Notre Dame.

*Paul Westberg.* Paul Westberg has served as our Senior Vice President, Business Development since March 2010. Prior to joining us, Mr. Westberg served as Vice President of Business Development at Bayhill Therapeutics Inc., a clinical-stage biotechnology company developing innovative therapies for autoimmune diseases, from November 2006 to March 2010. Prior to Bayhill Therapeutics, Mr. Westberg served in positions of increasing responsibility at Novacea, most recently as Vice President of Business Development. Prior to Novacea, Mr. Westberg served as Director of Business Development at Deltagen Inc., a provider of drug discovery tools and services to the biopharmaceutical industry and the academic research community, and at Collabra Pharma, Inc., a developer of pharmaceutical products, and as Manager of Financial Planning and Analysis at Aviron, a developer of a novel influenza treatment that was acquired by MedImmune in 2002. Mr. Westberg previously held finance positions of increasing responsibility at Genentech. Mr. Westberg holds a B.A. in Applied Mathematics from the University of California, San Diego, and an M.B.A. from the University of California, Berkeley Haas School of Business.

*Jay P. Shepard.* Jay P. Shepard has served as a member and the chairman of our board of directors since December 2013. Mr. Shepard is currently an Executive Partner at Sofinnova Ventures, or Sofinnova, a venture capital firm focused on the healthcare industry, which he joined as an Executive in Residence in 2008. Mr. Shepard previously served as President and Chief Executive Officer and was a member of the board of directors of NextWave Pharmaceuticals, Inc., a specialty pharmaceutical company developing and commercializing unique pediatric products utilizing proprietary drug delivery technology that was acquired by Pfizer in November 2012, from January 2010 to November 2012. From December 2005 to October 2007, Mr. Shepard served as President and Chief Executive Officer and a member of the board of directors of Ilypsa Inc., a biopharmaceutical company pioneering novel non-absorbed polymeric drugs for renal and metabolic disorders that was acquired by Amgen in July 2007. Mr. Shepard has served on the boards of directors of numerous public and private companies, including Ilypsa, Relypsa, Inc. and Intermune, Inc., and currently serves on the board of directors of Bullet Biotechnology, Inc., Marinus Pharmaceuticals, Inc., and Durect Corporation. Mr. Shepard holds

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a B.S. in Business Administration from the University of Arizona. We believe Mr. Shepard is able to make valuable contributions to our board of directors due to his extensive knowledge of the biopharmaceutical industry and his prior experience as an executive officer.

*Edmon R. Jennings.* Edmon R. Jennings has served as a member of our board of directors since February 2012. Mr. Jennings has been retired from full-time employment during the past five years, and currently focuses on his board service and certain consulting roles. Mr. Jennings previously served as the chairman of our board of directors from February 2012 to December 2013. Mr. Jennings previously served as President, Chief Executive Officer and a member of the board of directors of Angiogenix, Inc., a biopharmaceutical company developing therapeutic solutions for chronic vascular disease, from July 2003 to February 2008, and as Chief Commercialization Officer at Pain Therapeutics, Inc., a biopharmaceutical company, from February 2000 to June 2003. Mr. Jennings previously served on the boards of directors of Angiogenix, Inc., Monogram Biosciences Inc. and TRF Pharma. Mr. Jennings holds a B.A. from the University of Michigan. We believe Mr. Jennings is able to make valuable contributions to our board of directors due to his extensive experience in the biopharmaceutical industry.

*Srinivas Akkaraju, M.D., Ph.D.* Srinivas Akkaraju, M.D., Ph.D. has served as a member of our board of directors since July 2013. Dr. Akkaraju previously served as a member of our board of directors from February 2011 to February 2013. Dr. Akkaraju is currently a General Partner at Sofinnova Ventures, or Sofinnova, which he joined in April 2013. Prior to joining Sofinnova, Dr. Akkaraju was a Managing Director at New Leaf Venture Partners, or New Leaf from January 2009 to April 2013. From September 2006 to December 2008, Dr. Akkaraju served as a managing director at Panorama Capital, LLC, a private equity firm founded by the former venture capital investment team of J.P. Morgan Partners, LLC, or JPMP, a private equity division of JPMorgan Chase & Co. From April 2001 to September 2006, Dr. Akkaraju was a part of the health care investment team at JPMP, most recently as Partner. Dr. Akkaraju has served on the boards of directors of numerous public and private companies, including Synageva BioPharma Corp., Barrier Therapeutics, Inc. and EyeTech Pharmaceuticals Inc., all of which are or were publicly traded biotechnology companies, and Amarin Corporation plc, a foreign publicly traded biotechnology company, and currently serves on the boards of directors of Intercept Pharmaceuticals, Inc. and Seattle Genetics, Inc. Dr. Akkaraju holds a B.A. in Biochemistry and Computer Science from Rice University and an M.D. and Ph.D. in Immunology from Stanford University School of Medicine. We believe Dr. Akkaraju is able to make valuable contributions to our board of directors due to his experience investing in and serving as a director for companies in the biotechnology and healthcare industries.

*Francesco De Rubertis, Ph.D., C.F.A.* Francesco De Rubertis, Ph.D., C.F.A. has served as a member of our board of directors since July 2013. Dr. De Rubertis is currently a Partner and co-founder of the life sciences practice at Index Ventures, a venture capital firm specializing in investments in information technology and life sciences companies, which he joined in 1998. Dr. De Rubertis has served on the boards of directors of numerous public and private companies, including Addex Therapeutics Ltd., Cellzome AG, Genmab A/S, PanGenetics B.V., ParAllele Bioscience, Inc. and ProFibrix, Inc., and currently serves on the boards of directors of Minerva Neuroscience Inc. and Molecular Partners AG. Dr. De Rubertis is a Chartered Financial Analyst® (CFA) charterholder and a member of the Strategic Advisory Board of the University of Geneva. Dr. De Rubertis holds a B.A. in Genetics and Microbiology from the University of Pavia and a Ph.D. in Molecular Biology from the University of Geneva. We believe Dr. De Rubertis is able to make valuable contributions to our board of directors due to his experience investing in and serving as a director for companies in the life sciences industry.

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*Michael Dybbs, Ph.D.* Mike Dybbs, Ph.D. has served as a member of our board of directors since March 2013. Dr. Dybbs is currently a Principal at New Leaf, which he joined in May 2009. Prior to joining New Leaf, Dr. Dybbs was a Principal at the Boston Consulting Group from 2005 to 2009. Dr. Dybbs currently serves on the board of directors of Advanced Cell Diagnostics. Dr. Dybbs holds an A.B. in Biochemical Sciences from Harvard University and a Ph.D. in Molecular Biology and genetics from the University of California, Berkeley. We believe Dr. Dybbs is able to make valuable contributions to our board of directors due to his experience investing in and serving as a director for companies in the healthcare industry.

*Shahzad Malik, M.D.* Shahzad Malik has served as a member of our board of directors since February 2011. Dr. Malik is currently a General Partner at Advent Life Sciences, a venture capital firm focused on market-leading life sciences businesses, which he joined in April 1999. Dr. Malik has served on the boards of directors of numerous public and private companies, including Algeta ASA, Conatus Pharmaceuticals Inc., Respivot Ltd., and Emergent Biosolutions Inc. Dr. Malik holds an M.A. in Physiological Sciences from Oxford University and an M.D. from Cambridge University. We believe Dr. Malik is able to make valuable contributions to our board of directors due to his experience investing in and serving as a director for companies in the life sciences industry.

*Anthony Y. Sun, M.D.* Anthony Sun, M.D. has served as a member of our board of directors since January 2013. Dr. Sun is currently a Partner at Aisling Capital, a private equity firm dedicated to the life sciences, which he joined in 2002. Dr. Sun was previously an Adjunct Instructor of Medicine at the Hospital of the University of Pennsylvania. Dr. Sun has served on the boards of directors of numerous public and private companies, including CeNeRx Biopharma, Inc., Dynova Laboratories, Inc., HerbalScience, Inc. and MAP Pharmaceuticals, Inc., and currently serves on the board of directors of Paratek Pharmaceuticals, Inc. Dr. Sun is also Board Certified in Internal Medicine. Dr. Sun holds a B.S. in Electrical Engineering from Cornell University, an M.B.A. from The Wharton School of the University of Pennsylvania and an M.D. from Temple University School of Medicine. We believe Dr. Sun is able to make valuable contributions to our board of directors due to his experience investing in and serving as a director for companies in the life sciences industry.

*John Varian* has served as a member of our board of directors since March 2014. Mr. Varian currently serves as Chief Executive Officer of XOMA Corporation since January 2012, and previously served as Interim Chief Executive Officer of XOMA since August 2011. He has also served as a member of the board of directors of XOMA since December 2008. Mr. Varian previously served as Chief Operating Officer of ARYx Therapeutics, Inc. from December 2003 through August 2011. Beginning in May 2000, Mr. Varian was Chief Financial Officer of Genset S.A. in Paris France, where he was a key member of the team negotiating Genset's sale to Serono S.A. in 2002. From 1998 to 2000, Mr. Varian served as Senior Vice President, Finance and Administration of Elan Pharmaceuticals, Inc., joining the company as part of its acquisition of Neurex Corporation. Prior to the acquisition, he served as Neurex Corporation's Chief Financial Officer from 1997 until 1998. From 1991 until 1997, Mr. Varian served as the VP Finance and Chief Financial Officer of Anergen Inc. Mr. Varian was an Audit Principal / Senior Manager at Ernst & Young LLP from 1987 until 1991 where he focused on life sciences. Mr. Varian is a founding member of the Bay Area Bioscience Center and a former chairman of the Association of Bioscience Financial Officers International Conference. Mr. Varian holds a B.B.A. from Western Michigan University. We believe Mr. Varian is able to make valuable contributions to our board of directors due to his significant experience in building biopharmaceutical companies and his specific focus on financing, corporate financial management and related matters.

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Each of our executive officers serves at the discretion of our board of directors and holds office until his or her successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

### **Board composition**

Our business and affairs are managed under the direction of our board of directors, which currently consists of eight members. The members of our board of directors were elected in compliance with the provisions of our amended and restated certificate of incorporation, as amended, and a voting agreement among certain of our stockholders, as amended. The voting agreement will terminate upon the closing of this offering and none of our stockholders will have any special rights regarding the election or designation of members of our board of directors.

In accordance with our amended and restated certificate of incorporation to be filed in connection with this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual general meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

The Class I directors will be Drs. Dybbs and De Rubertis and Mr. Jennings, and their terms will expire at our annual meeting of stockholders to be held in 2015;

The Class II directors will be Messrs. Shepard and Malik and Dr. Sun, and their terms will expire at our annual meeting of stockholders to be held in 2016; and

The Class III directors will be Drs. Cleland and Akkaraju and Mr. Varian, and their terms will expire at our annual meeting of stockholders to be held in 2017.

We expect that additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

### **Director independence**

Under the listing requirements and rules of The NASDAQ Global Select Market, or NASDAQ, independent directors must comprise a majority of a listed company's board of directors within a specified period of time after this offering.

Our board of directors has undertaken a review of its composition, the composition of its committees, and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that none of the members of our board of directors, except Dr. Cleland, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is independent as that term is defined under the applicable rules and regulations of the Securities and Exchange Commission, or the SEC, and the listing requirements and rules of NASDAQ. In making this determination, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

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### **Board committees**

Our board of directors has the authority to appoint committees to perform certain management and administration functions. Upon the closing of this offering, our board of directors will have an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each committee are described below. Members will serve on these committees until their resignation or until otherwise determined by the board of directors. Following the closing of this offering, the charters for each of these committees will be available on our website at [www.versartis.com](http://www.versartis.com). The inclusion of our website address in this prospectus does not incorporate by reference the information on or accessible through our website into this prospectus.

### ***Audit committee***

Immediately following the closing of this offering, our audit committee will consist of John Varian, Anthony Sun and Edmon Jennings, each of whom satisfies the independence requirements under NASDAQ listing standards and Rule 10A-3(b)(1) of the Exchange Act. Following the closing of this offering, the chairperson of our audit committee will be Mr. Varian, whom our board of directors has determined to be an audit committee financial expert within the meaning of SEC regulations. Each member of our audit committee can read and understand fundamental financial statements in accordance with audit committee requirements. In arriving at this determination, the board has examined each audit committee member's scope of experience and the nature of their employment in the corporate finance sector.

Our audit committee will oversee our corporate accounting and financial reporting process. The audit committee will have the following responsibilities, among others things, as set forth in the audit committee charter that will become effective upon the closing of this offering:

reviewing disclosures by prospective registered public accounting firm of relationships between such firm or its members and the company or our personnel in financial oversight roles to determine independence of prospective registered public accounting firm;

reviewing and pre-approving the engagement of our independent registered public accounting firm to perform audit services and any permissible non-audit services;

evaluating the performance and assessing qualifications of our independent registered public accounting firm and deciding whether to retain their services;

monitoring the rotation of partners of our independent registered public accounting firm on our engagement team as required by law;

reviewing disclosures by our independent registered public accounting firm of relationships between such firm or its members and the company or our personnel in financial oversight roles to affirm independence of our independent registered public accounting firm;

considering and adopting clear policies regarding pre-approval by our audit committee of our employment of individuals employed or formerly employed by our independent registered accounting firm and engaged on our account;

reviewing our annual and quarterly financial statements and reports and discussing the statements and reports with our independent registered public accounting firm and management, including a review of disclosures under the section of this prospectus entitled Management's discussion and analysis of financial condition and results of operations;

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preparing the audit committee report required by the SEC to be included in our annual proxy statement;

reviewing, with our independent registered public accounting firm and management, significant issues that may arise regarding accounting principles and financial statement presentation, as well as matters concerning the scope, adequacy and effectiveness of our financial controls;

reviewing and discussing with management and our independent registered accounting firm, our guidelines and policies with respect to risk assessment and risk management, any management or internal control letters, and any conflicts or disagreements regarding financial reporting, accounting practices of policies or other matters significant to our financial statements or the report of our independent registered accounting firm;

reviewing and establishing appropriate additional insurance coverage for our directors and executive officers;

considering and reviewing with our management, our independent registered accounting firm, and outside counsel or advisors, correspondence with regulatory or governmental agencies and any published reports that may raise material issues regarding our financial statements or accounting policies;

conducting an annual assessment of the performance of the audit committee and its members, and the adequacy of its charter;

establishing procedures for the receipt, retention and treatment of complaints received by us regarding financial controls, accounting or auditing matters; and

reporting to our board of directors material issues in connection with our auditor committee's responsibilities.

### ***Compensation committee***

Immediately following the closing of this offering, our compensation committee will consist of Jay Shepard, Srinivas Akkaraju, Shahzad Malik and Michael Dybbs, each of whom our board of directors has determined to be independent under NASDAQ listing standards, a non-employee director as defined in Rule 16b-3 promulgated under the Exchange Act, and an outside director as that term is defined in Section 162(m) of the Internal Revenue Code. Following the closing of this offering, the chairperson of our compensation committee will be Mr. Malik.

Our compensation committee will review and recommend policies relating to compensation and benefits of our officers and employees. The compensation committee will have the following responsibilities, among other things, as set forth in the compensation committee's charter that will become effective upon the closing of this offering:

determining the appropriate relationship of compensation to the market to achieve corporate objectives;

recommending to our board of directors for determination and approval the compensation and other terms of employment of our chief executive officer and his performance in light of relevant corporate performance goals and objectives;

reviewing and approving the compensation and other terms of employment of our executive officers (other than our chief executive officer) and other employees, and corporate



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performance goals and objectives relevant to such compensation, and assessing the attainment of the prior year's corporate goals and objectives;

appointing, compensating, and overseeing the work of compensation consultants, independent legal counsel or any other advisors engaged for the purpose of advising the committee after assessing the independence of such person in accordance with applicable NASDAQ rules;

after consulting with compensation consultants, independent legal counsel or other advisor to our compensation committee, reviewing and recommending to our board of directors the compensation of our directors;

reviewing and recommending to our board of directors and administering the equity incentive plans, compensation plans, and similar programs advisable for us, as well as evaluating and approving modification or termination of existing plans and programs;

establishing policies with respect to equity compensation arrangements;

reviewing and discussing annually with management the executive compensation disclosure and analysis required to be disclosed by SEC rules;

recommending to our board of directors compensation-related proposals to be considered at our annual meeting of stockholders, including the frequency of advisory votes on executive compensation;

preparing the compensation committee report required by the SEC to be included in our annual proxy statement;

reviewing and discussing with management any conflicts of interest raised by the work of a compensation consultant or advisor retained by our compensation committee or management and how such conflict is being addressed, and preparing any necessary disclosure in our annual proxy statement in accordance with applicable SEC rules; and

reviewing and evaluating, at least annually, the performance of the compensation committee and the adequacy of its charter.

### ***Nominating and corporate governance committee***

Immediately following the closing of this offering, our nominating and corporate governance committee will consist of Jay Shepard, Srinivas Akkaraju and Edmon Jennings, each of whom our board of directors has determined to be independent under NASDAQ listing standards. Following the closing of this offering, the chairperson of our nominating and corporate governance committee will be Dr. Akkaraju.

Our nominating and corporate governance committee will make recommendations regarding corporate governance, the composition of our board of directors, identification, evaluation and nomination of director candidates and the structure and composition of committees of our board of directors. The nominating and corporate governance committee will have the following responsibilities, among other things, as set forth in the nominating and corporate governance committee's charter that will become effective upon the closing of this offering:

reviewing periodically and evaluating director performance on our board of directors and its applicable committees, and recommending to our board of directors and management areas for improvement;



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interviewing, evaluating, nominating and recommending individuals for membership on our board of directors;

overseeing and reviewing our processes and procedures to provide information to our board of directors and its committees;

reviewing and recommending to our board of directors any amendments to our corporate governance policies; and

reviewing and assessing, at least annually, the performance of the nominating and corporate governance committee and the adequacy of its charter.

**Code of business conduct and ethics**

Upon the closing of this offering, we will adopt a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. Following the closing of this offering, the code of business conduct and ethics will be available on our website. We intend to disclose any amendments to the code, or any waivers of its requirements, on our website to the extent required by the applicable rules and exchange requirements. The inclusion of our website address in this prospectus does not incorporate by reference the information on or accessible through our website into this prospectus.

**Compensation committee interlocks and insider participation**

None of the members of our compensation committee has ever been an officer or employee of the company. None of our executive officers serve, or have served during the last fiscal year, as a member of the board of directors, compensation committee or other board committee performing equivalent functions of any entity that has one or more executive officers serving as one of our directors or on our compensation committee.

**Director compensation**

We currently provide cash compensation to certain of our non-employee directors. From time to time, we have granted stock options to certain of our non-employee directors as compensation for their services. Dr. Cleland, who is also an employee, is compensated for his service as an employee and does not receive any additional compensation for his service on our board of directors.

The following table sets forth information regarding compensation earned by our non-employee directors during the fiscal year ended December 31, 2013.

| Name  | Cash<br>compensation | Option<br>awards <sup>(1)</sup> | Other<br>compensation | Total    |
|---|----------------------|---------------------------------|-----------------------|----------|
| Jay P. Shepard <sup>(2)</sup>                       | \$                   | \$ 3,623                        | \$                    | \$ 3,623 |
| Edmon R. Jennings                                   | 29,652               | 981                             |                       | 30,633   |
| Srinivas Akkaraju, M.D., Ph.D. <sup>(3)</sup>       |                      |                                 |                       |          |
| Francesco De Rubertis, Ph.D., C.F.A. <sup>(4)</sup> |                      |                                 |                       |          |
| Michael Dybbs, Ph.D. <sup>(5)</sup>                 |                      |                                 |                       |          |
| Shahzad Malik                                       |                      |                                 |                       |          |
| Anthony Y. Sun, M.D. <sup>(6)</sup>                 |                      |                                 |                       |          |
| John Varian <sup>(7)</sup>                          |                      |                                 |                       |          |

- (1) The amounts in this column reflect the aggregate grant date fair value of each option award granted during the fiscal year, computed in accordance with FASB ASC Topic 718. The valuation assumptions used in determining such amounts are described in Note 2 and Note 10 to our financial statements included in this

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prospectus. The table below lists the aggregate number of shares and additional information with respect to the outstanding option awards held by each of our non-employee directors.

| <b>Name</b>                          | <b>Number of shares subject to<br/>outstanding options as of<br/>December 31, 2013</b> |
|--------------------------------------|--|
| Jay P. Shepard                       | 132,057  |
| Edmon R. Jennings                    | 11,356   |
| Srinivas Akkaraju, M.D., Ph.D.       |  |
| Francesco De Rubertis, Ph.D., C.F.A. |  |
| Michael Dybbs, Ph.D.                 |  |
| Shahzad Malik                        |  |
| Anthony Y. Sun, M.D.                 |  |
| John Varian <sup>(7)</sup>           |  |

- (2) Mr. Shepard joined our board of directors in December 2013.
- (3) Dr. Akkaraju rejoined our board of directors in October 2013.
- (4) Dr. De Rubertis joined our board of directors in July 2013.
- (5) Dr. Dybbs joined our board of directors in March 2013.
- (6) Dr. Sun joined our board of directors in January 2013.
- (7) Mr. Varian joined our board of directors in March 2014.

Concurrently with this offering, each of our non-employee directors other than Mr. Shepard will be granted a stock option to purchase 35,000 shares of our common stock, vesting annually over four years, having an exercise price equal to the price to the public in this offering.

In March 2014, our board of directors adopted a non-employee director compensation policy, which will be effective for all of our non-employee directors upon the closing of this offering, pursuant to which we will compensate our non-employee directors with a combination of cash and equity. Each such director who is not affiliated with one of our principal stockholders will receive an annual base cash retainer of \$35,000 for such service, to be paid quarterly. The policy also provides that we compensate certain members of our board of directors for service on our committees as follows:

The chair or executive chair of our board of directors will receive an annual cash retainer of \$15,000 for such service, paid quarterly;

The chairperson of our audit committee will receive an annual cash retainer of \$15,000 for such service, paid quarterly;

The chairperson of our compensation committee will receive an annual cash retainer of \$15,000 for such service, paid quarterly; and

The chairperson of our nominating and corporate governance committee will receive an annual cash retainer of \$10,000 for such service, paid quarterly.

The policy further provides for the grant of equity awards as follows:

For each new director that joins our board of directors after the closing of this offering, an initial stock option grant to purchase 35,000 shares of our common stock, vesting annually over four years; and

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Annually, for each director continuing to serve on our board of directors, a stock option grant to purchase 10,000 shares of our common stock, vesting annually over four years.

Each of these options will be granted with an exercise price equal to the fair market value of our common stock on the date of such grant.

**Table of Contents****Executive compensation**

As an emerging growth company, we have opted to comply with the executive compensation disclosure rules applicable to smaller reporting companies, as such term is defined in the rules promulgated under the Securities Act of 1933, as amended, which require compensation disclosure for our principal executive officer and the two most highly compensated executive officers other than our principal executive officer. Our named executive officers for the year ended December 31, 2013 are:

Jeffrey L. Cleland, Ph.D., our Chief Executive Officer and Co-founder;

Joshua T. Brumm, our Chief Financial Officer; and

Paul Westberg, our Senior Vice President, Business Development.

Throughout this section, we refer to these three officers as our named executive officers.

The Summary Compensation Table below sets forth information regarding the compensation awarded to or earned by our named executive officers during the year ended December 31, 2013.

**2013 Summary compensation table**

| <b>Name and principal position</b>                                  | <b>Year</b> | <b>Salary</b> | <b>Option awards<sup>(1)</sup></b> | <b>Non-equity incentive plan compensation</b> | <b>Total</b> |
|---|-------------|---------------|------------------------------------|---|--------------|
| Jeffrey L. Cleland, Ph.D.<br>Chief Executive Officer and Co-founder | 2013        | \$ 310,000    | \$ 43,602                          | \$ 62,000                                     | \$ 415,602   |
| Joshua T. Brumm <sup>(2)</sup><br>Chief Financial Officer           | 2013        | \$ 37,841     | \$ 10,163                          | \$ 39,000                                     | \$ 87,004    |
| Paul Westberg<br>Senior Vice President, Business Development        | 2013        | \$ 250,000    | \$ 9,934                           | \$ 50,000                                     | \$ 309,934   |

(1) The amounts in this column reflect the aggregate grant date fair value of each option award granted during the fiscal year, computed in accordance with FASB ASC Topic 718. The valuation assumptions used in determining such amounts are described in Note 2 and Note 10 to our financial statements included in this prospectus.

(2) Mr. Brumm's employment with us began in November 2013.

**Employment offer letters**

We have entered into employment offer letters with each of our named executive officers. The offer letters provide for at will employment and set forth the terms and conditions of employment, including annual base salary, target bonus opportunity, equity compensation, severance benefits and eligibility to participate in our employee benefit plans and programs. Our named executive officers were each required to execute our standard proprietary information and inventions agreement. The material terms of these offer letters are summarized below. These summaries are qualified in their entirety by reference to the actual text of the offer letters, which are filed as exhibits to the registration statement of which this prospectus is a part.

**Jeffrey L. Cleland, Ph.D.**

We entered into an amended employment offer letter with Dr. Cleland, our Chief Executive Officer, on December 20, 2010, which supersedes offer letters we entered into with him on April 3,



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2009 and May 12, 2009. Under his 2010 offer letter, Dr. Cleland is eligible to receive a target annual bonus equal to 20% of his current annual base salary, based upon the achievement of performance criteria established by our board of directors.

In connection with his employment, on May 13, 2009, Dr. Cleland was granted an option to purchase 106,280 shares of our common stock under our 2009 Stock Plan, or our 2009 Plan. The option was granted with a per share exercise price equal to the fair market value of our common stock on the grant date and was immediately exercisable. Dr. Cleland exercised his option on May 14, 2009, subject to our right of repurchase, which lapsed in full on January 11, 2013. The shares are also subject to transfer restrictions, which restrictions terminate upon consummation of this offering.

In addition, Dr. Cleland's 2010 offer letter provides that upon a qualifying termination of employment, he will be entitled to certain severance payments and benefits, which are described below under Potential payments and benefits upon termination or change in control.

### ***Joshua T. Brumm***

We entered into an employment offer letter with Mr. Brumm on November 8, 2013, pursuant to which he serves as our Chief Financial Officer. Under the offer letter, Mr. Brumm is eligible to receive a target annual bonus equal to 20% of his current annual base salary, based upon the achievement of performance criteria established by our chief executive officer and approved by our board of directors. Mr. Brumm received a \$30,000 signing bonus, which is subject to repayment if he voluntarily resigns or is terminated by us for cause before the first anniversary of his start date.

In connection with his employment, on December 5, 2013, Mr. Brumm was granted an option to purchase 152,108 shares of our common stock under our 2009 Plan, with a per share exercise price equal to the fair market value of our common stock on the date of grant. The option will vest over four years, with 25% of the shares subject to the option vesting on the first anniversary of his start date, and the remaining 75% of the shares subject to the option vesting in 36 substantially equal monthly installments thereafter, subject to his continuous service with us on each applicable vesting date.

In addition, Mr. Brumm's offer letter provides that upon a qualifying termination of employment, he will be entitled to certain severance payments and benefits, which are described below under Potential payments and benefits upon termination or change in control.

### ***Paul Westberg***

We entered into an employment offer letter with Mr. Westberg, our Senior Vice President, Business Development, on February 10, 2011, which supersedes the offer letter we entered into with him on February 26, 2010. Under his 2011 offer letter, Mr. Westberg is eligible to receive a target annual bonus equal to 20% of his current annual base salary, based upon the achievement of personal and corporate milestones approved by our board of directors.

In connection with his employment, Mr. Westberg was granted an option to purchase 17,217 shares of our common stock under our 2009 Plan, with a vesting commencement date of March 29, 2010. The option was granted with a per share exercise price equal to the fair market value of our common stock on the grant date and was immediately exercisable. The option is divided into three separate tranches of 12,130, 2,739 and 2,348 shares, respectively. The first tranche is subject to a four-year vesting schedule,

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with 25% of the shares subject to the first tranche vesting on the first anniversary of the vesting commencement date and the remaining 75% of the shares subject to the first tranche vesting in 36 equal monthly installments thereafter. The second and third tranches are subject to a performance-based and time-based vesting schedule, under which the shares subject to the second and third tranches will be subject to a four-year vesting schedule, but only upon the attainment of specified performance milestones and conditions in 2010 and 2011. Since the performance milestones and conditions were achieved in 2010 and 2011, the shares subject to the second and third tranches are subject to the same vesting schedule as the first tranche. If Mr. Westberg's employment is terminated by us without cause (as defined in his offer letter) following a change in control (which generally is defined as the consummation of a merger or consolidation of the company with or into another entity or the dissolution, liquidation or winding up of the company), he will be credited with an additional 12 months of service for purposes of vesting in the option. The shares are also subject to transfer restrictions that terminate upon consummation of this offering.

In addition, Mr. Westberg's offer letter provides that upon a qualifying termination of employment, he will be entitled to certain severance payments and benefits, which are described below under Potential payments and benefits upon termination or change in control.

**Outstanding equity awards at December 31, 2013**

The following table provides information regarding outstanding equity awards held by our named executive officers as of December 31, 2013.

| Name                      | Grant date | Number of securities underlying unexercised options <sup>(1)(2)</sup> |               | Option exercise price | Option expiration date |
|---------------------------|------------|---|---------------|-----------------------|------------------------|
|                           |            | Exercisable   | Unexercisable |                       |                        |
| Jeffrey L. Cleland, Ph.D. | 3/30/2011  | 88,244  | 40,111        | \$ 1.27               | 3/29/2021              |
|                           | 5/1/2012   | 32,254  | 49,230        | \$ 1.38               | 4/30/2022              |
|                           | 1/23/2013  | 98,324  |               | \$ 1.61               | 1/22/2023              |
|                           | 7/15/2013  | 96,618  |               | \$ 1.61               | 7/14/2023              |
|                           | 12/5/2013  |   | 118,188       | \$ 2.53               | 12/4/2023              |
| Joshua T. Brumm           | 12/5/2013  |   | 168,805       | \$ 2.53               | 12/4/2023              |
|                           | 12/31/2013 |   | 4,347         | \$ 3.34               | 12/30/2023             |
| Paul Westberg             | 3/30/2011  | 16,840  | 7,654         | \$ 1.27               | 3/29/2021              |
|                           | 3/30/2011  | 16,141  | 1,076         | \$ 1.27               | 3/29/2021              |
|                           | 5/1/2012   | 8,514   | 12,996        | \$ 1.38               | 4/30/2022              |
|                           | 1/23/2013  | 24,270  |               | \$ 1.61               | 1/22/2023              |
|                           | 7/15/2013  | 20,397  |               | \$ 1.61               | 1/14/2023              |
|                           | 12/5/2013  |   | 18,296        | \$ 2.53               | 12/4/2023              |

(1) The options listed are fully vested or are subject to an early exercise right and may be exercised in full prior to vesting of the shares underlying such options. Vesting of all options is subject to continued service on the applicable vesting date.

(2) The shares subject to the stock option vest over a four-year period as follows: 25% of the shares underlying the options vest on the one-year anniversary of the vesting commencement date and thereafter 1/48<sup>th</sup> of the shares vest each month, subject to the continued service with us through each vesting date.

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**Potential payments and benefits upon termination or change in control**

**Severance benefits other than in connection with a change in control**

***Dr. Cleland***

Dr. Cleland's offer letter provides that if we terminate his employment for any reason other than cause or permanent disability, or a qualifying termination, if Dr. Cleland (i) executes and does not revoke a release of claims within 60 days following the date he terminates employment with us, (ii) returns all of our property in his possession and (iii) resigns as a member of the Board, he will be entitled to 6 months of salary continuation payments and if he timely elects to continue his health insurance coverage under COBRA, we will pay a portion of his monthly COBRA premiums (at the same rate that we pay for active employees) for up to 6 months following the date he terminates employment with us. In addition, in the event of a qualifying termination, the option granted to him under his offer letter will remain exercisable for one year following the date he terminates service with us.

***Mr. Brumm***

Mr. Brumm's offer letter provides that in the event of a qualifying termination, if he (i) executes and does not revoke a release of claims within 60 days following the date he terminates employment with us and (ii) returns all of our property in his possession, he will be entitled to 6 months of salary continuation payments and if he timely elects to continue his health insurance coverage under COBRA, we will pay a portion of his monthly COBRA premiums (at the same rate that we pay for active employees) for up to 6 months following the date he terminates employment with us. In addition, in the event of a qualifying termination, the option granted to him under his offer letter will be credited with 6 months of service for purposes of vesting and the vested portion of such option will remain exercisable for one year following the date he terminates service with us.

***Mr. Westberg***

Mr. Westberg's offer letter provides that in the event of a qualifying termination, if he (i) executes and does not revoke a release of claims within 60 days following the date he terminates employment with us and (ii) returns all of our property in his possession, he will be entitled to 6 months of salary continuation payments and if he timely elects to continue his health insurance coverage under COBRA, we will pay a portion of his monthly COBRA premiums (at the same rate that we pay for active employees) for up to 6 months following the date he terminates service with us.

For purposes of each of the offer letters with our named executive officers, **cause** generally means (i) the unauthorized use or disclosure of our confidential information or trade secrets, (ii) a material breach of any agreement with us, (iii) a material failure to comply with our written policies or rules, (iv) the conviction of or plea of guilty or no contest to a felony, (v) gross negligence or willful misconduct, (vi) the continued failure to perform assigned duties, or (vii) the failure to cooperate in good faith with a governmental or internal investigation of us or our directors, officers or employees, upon our request.

For purposes of each of the offer letters with our named executive officers, **permanent disability** means the inability to perform the essential functions of the named executive officer's position, with or without reasonable accommodation, for a period of at least 120 consecutive days because of a physical or mental impairment.

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**Change in control**

***Change in control severance benefit plan***

We have adopted a change in control severance benefit plan, or the severance plan. The severance plan provides certain of our employees, including each of our named executive officers, with severance payments and benefits upon certain qualifying terminations of employment within a one-year period following the closing of a change in control, as defined in the severance plan. The summary below is qualified by reference to the actual text of the severance plan, which is filed as an exhibit to the registration statement of which this prospectus is a part.

Under the severance plan, in the event of an involuntary termination without cause (and not due to death or disability) or if a participant resigns for good reason, if the participant in the severance plan (i) executes and does not revoke a release of claims within 60 days following the date he terminates employment with us and (ii) returns all of our property in his possession, he will be entitled to cash severance equal to the sum of his or her monthly base salary and monthly annual bonus target, multiplied by a severance multiplier, which is 15 in the case of Dr. Cleland, and 12 in the cases of Mr. Brumm and Mr. Westberg. In addition, following a qualifying termination, if a participant timely elects to continue his health insurance coverage under COBRA, we will pay a portion of his monthly COBRA premiums for up to 15 months in the case of Dr. Cleland, and 12 months in the cases of Mr. Brumm and Mr. Westberg, following the date of termination.

All stock awards which are vested and exercisable as of the date of a qualifying termination under the severance plan (including by virtue of the provisions of the applicable equity plan) will remain outstanding and exercisable until the earliest to occur of (i) the last day of the applicable severance period, which is 15 months in the case of Dr. Cleland, and 12 months in the cases of Mr. Brumm and Mr. Westberg and (i) the expiration of the original term of such stock awards.

If one of our named executive officers is entitled to severance benefits under the severance plan by virtue of a qualifying termination of employment within 12 months following a change in control, he would not be entitled to severance benefits under the terms of his offer letter.

In addition, the severance plan provides that, except as otherwise expressly provided in an agreement between us and a participant, if any payment or benefit a participant would receive in connection with a change in control would constitute a parachute payment within the meaning of Section 280G of the Internal Revenue Code and such payment or benefit would be subject to the excise tax imposed by Section 4999 of the Internal Revenue Code, then such payment or benefit will be equal to either (1) the largest portion of the change in control payment that would result in no portion of the payment or benefit being subject to the excise tax, or (2) the largest portion, up to and including the total payment or benefit, whichever amount, after taking into account all applicable taxes, including the excise tax (all computed at the highest applicable marginal rate), would result in the participant's receipt, on an after-tax basis, of the greatest economic benefit to the participant, notwithstanding that all or some portion of the payment or benefit may be subject to the excise tax. If a reduction is so required, the reduction will occur in the order specified in the severance plan.

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### ***Treatment of options under our 2009 Plan***

Our 2009 Plan provides that outstanding options will be treated as follows in the event of a change in control, subject to any other limitations proposed by the administrator of the 2009 Plan:

Immediately prior to the consummation of a change in control, outstanding repurchase rights held by us related to any outstanding options will terminate;

To the extent that outstanding options are not assumed or otherwise continued in connection with a change in control, the shares subject to each outstanding option will vest in full immediately prior to the closing of the change in control and the option will terminate immediately following the change in control; or

If outstanding options are assumed or otherwise continued in connection with a change in control, in the event of an involuntary termination of employment (as defined in the 2009 Plan) within 12 months following the closing of the change in control, the shares subject to such assumed or continued options will vest in full on the date of termination.

In addition, our form of option agreement under the 2009 Plan provides that if options are assumed or otherwise continued in connection with a change in control transaction, the options subject to such agreements will become fully exercisable.

For purposes of the 2009 Plan, a change in control generally means (i) a merger, consolidation or other reorganization in which securities representing more than 50% of the total combined voting power of our outstanding securities are beneficially owned, directly or indirectly, by a person or persons different from the person or persons who beneficially owned those securities immediately prior to such transaction, (ii) a sale, transfer or other disposition of all or substantially all of our assets, or (iii) any person becomes the beneficial owner, directly or indirectly, of securities representing 50% or more of the total voting power of our then outstanding securities.

For purposes of the 2009 Plan, an involuntary termination generally means, during the 12 months following the closing of a change in control, either (1) a termination of service other than for misconduct (as defined in the 2009 Plan) or (2) a voluntary resignation following: a material diminution in the optionee's base compensation; a material diminution in the optionee's authority, duties, position or responsibilities; a material diminution in the authority, duties, position or responsibilities of the optionee's supervisor (including a requirement that an optionee report to a corporate officer or employee instead of directly to our board of directors); a material diminution in the budget over which the optionee retains authority; a relocation of the optionee's principal place of work to a location more than 50 miles away from the principal place of work prior to a change in control; or any other act or omission that constitutes a material breach by us of the 2009 Plan.

### ***Treatment of stock awards under our 2014 Plan***

Our 2014 Plan provides that in the event of certain corporate transactions, as defined in the 2014 Plan, the following provisions will apply to outstanding stock awards, unless otherwise provided in a stock award agreement or any other written agreement between us and a participant, or unless otherwise expressly provided by our board of directors at the time of grant of a stock award:

The surviving or acquiring corporation (or its parent) may assume, continue or substitute similar stock awards for outstanding stock awards under the 2014 Plan and any reacquisition

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or repurchase rights held by us may be assigned to the surviving or acquiring corporation (or its parent); provided, that if any such stock awards are so assumed, continued or substituted, if a participant incurs an involuntary termination on or following the date of such corporate transaction, any unvested shares subject to such assumed, continued or substituted stock awards will vest in full as of the date of such termination;

To the extent that outstanding stock awards are not so assumed, continued or substituted, the vesting and, if applicable, exercisability of any such stock awards held by participants whose continuous service has not terminated prior to the effective time of the corporate transaction will be accelerated in full to a date prior to the effective time of such corporate transaction, and such stock awards will terminate if not exercised (if applicable) at or prior to the effective time of such corporate transaction, and any reacquisition or repurchase rights held by us will lapse, contingent upon the effectiveness of such corporate transaction;

To the extent that outstanding stock awards are not so assumed, continued or substituted, the vesting and, if applicable, exercisability of any such stock awards held by participants whose continuous service has terminated prior to the effective time of the corporate transaction will not be accelerated and all unvested stock awards held by such participants will terminate if not exercised (if applicable) prior to the effective time of the corporate transaction, but any reacquisition or repurchase rights held by us may continue to be exercised notwithstanding such corporate transaction; or

To the extent a stock award will terminate if not exercised prior to the effective time of a corporate transaction, our board of directors may provide that the holder of the stock award may not exercise the stock award, but instead will receive a payment, in such form as may be determined by our board of directors, equal in value to the excess, if any, of the value of the property the participant would have received upon exercise of the stock award over any exercise price payable by such holder in connection with such exercise.

A stock award may be subject to additional acceleration of vesting and exercisability upon or after a change in control, as defined in the 2014 Plan, as may be provided in the stock award agreement for such stock award or in any other written agreement between us and a participant, but in the absence of such a provision, no such acceleration will occur.

For purposes of the 2014 Plan, an involuntary termination generally means, during the 12 months following the closing of a corporate transaction or change in control, either (1) a termination of service other than for cause (as defined in the 2014 Plan) or (2) a voluntary resignation following: a material diminution in the participant's base salary; a material diminution in the participant's authority, duties, position or responsibilities; a material diminution in the authority, duties, position or responsibilities of the participant's supervisor (including a requirement that a participant report to a corporate officer or employee instead of directly to our board of directors); a material diminution in the budget over which the participant retains authority; a relocation of the participant's principal place of work to a location more than 50 miles away from the principal place of work prior to the consummation of a corporate transaction or a change in control; or any other act or omission that constitutes a material breach by us of the 2014 Plan.

**Employee benefit plans**

Our named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, vision, group life and accidental death and dismemberment insurance plans, in each case, on the same basis as all of our other employees. We maintain a 401(k) plan for the benefit of

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our eligible employees, including our named executive officers, as discussed in the section below entitled 401(k) Plan.

**401(k) plan**

We maintain a retirement savings plan, or 401(k) plan, that provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. Under our 401(k) plan, eligible employees may defer eligible compensation subject to applicable annual contribution limits imposed by the Internal Revenue Code of 1986, as amended, or the Code. Employees' pre-tax contributions are allocated to each participant's individual account. Participants are immediately and fully vested in their contributions. We do not currently provide an employer match on employee contributions. The 401(k) plan is intended to be qualified under Section 401(a) of the Code with the 401(k) plan's related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan.

**Pension benefits**

We do not maintain any pension benefit plans.

**Nonqualified deferred compensation**

We do not maintain any nonqualified deferred compensation plans.

**Equity incentive plans**

The principal features of our equity incentive plans are summarized below. These summaries are qualified in their entirety by reference to the actual text of the plans, which are filed as exhibits to the registration statement of which this prospectus is a part.

***2009 Stock Plan***

Our board of directors adopted our 2009 Stock Plan, or the 2009 Plan, in February 2009, and our stockholders subsequently approved the 2009 Plan in May 2009. The 2009 Plan was amended by our board of directors on May 13, 2009, September 10, 2010, February 14, 2011, June 16, 2011, January 18, 2012, May 1, 2012, October 12, 2012, January 7, 2013, July 8, 2013, October 1, 2013, December 28, 2013, February 4, 2014 and February 14, 2014. Our 2009 Plan provides for the grant of incentive stock options, or ISOs, within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, or the Code, to our employees, and for the grant of nonstatutory stock options, or NSOs, and shares of our common stock to our employees, directors and consultants. No further grants will be made under our 2009 Stock Plan after the closing of this offering. However, any outstanding awards granted under our 2009 Plan will remain outstanding, subject to the terms of our 2009 Plan and award agreements, until such awards are exercised or otherwise terminate or expire by their terms.

***Authorized shares.*** As of February 28, 2014, the maximum number of shares of our common stock that may be issued under our 2009 Plan is 2,562,970, which includes (i) 1,934,082 shares of our common stock issuable upon the exercise of stock options outstanding as of February 28, 2014, and (ii) 470,521 shares of our common stock reserved for future issuance under the 2009 Plan as of February 28, 2014.

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Shares issued under our 2009 Plan include any authorized but unissued or reacquired shares of our common stock. Shares subject to stock awards granted under our 2009 Plan that expire or terminate without being exercised in full will again be available for issuance under our 2009 Plan.

**Plan administration.** Our board of directors, or a duly authorized committee of our board of directors, may administer our 2009 Plan. Any reference to the board of directors in our 2009 Plan will also mean any committee of our board of directors to whom our board of directors has assigned a particular administrative function. Subject to the terms of our 2009 Plan, the board of directors has the authority to determine the terms of the awards, including recipients, the exercise or purchase price of the awards, if any, the number of shares subject to each stock award, the fair market value of our common stock, the vesting schedule applicable to the awards, the forms of consideration, if any, payable upon exercise or settlement of the award, and the placement of any transfer restrictions or rights of repurchase, if any. Additionally, the board of directors may modify, extend, assume or accept the cancellation of outstanding options, provided that such modification does not materially impair the existing rights of any participant without such participants written consent. The board of directors has full authority and discretion to take any actions it deems necessary or advisable for the administration of the 2009 Plan. All decisions, interpretations and other actions of the board of directors will be final and binding.

**Change in control.** Our 2009 Plan provides that in the event of a change in control, as defined under our 2009 Plan, if outstanding options are not assumed or continued by the successor entity in such change in control, then the shares subject to outstanding options will become fully vested and exercisable immediately prior to the consummation of the change in control (and such options will terminate immediately following the consummation of the change in control). If outstanding options are assumed or continued in a change in control transaction, (1) the terms of such options will be appropriately adjusted to apply to the number and class of securities that would have been issuable upon the consummation of the change in control had the option been exercised immediately prior to such event and (2) appropriate adjustments will be made to the number and class of securities available for issuance under our 2009 Plan following the change in control and the exercise price payable per share under each outstanding option. In addition, if outstanding options are assumed or continued in a change in control transaction, then upon an involuntary termination of the option holder's employment, the shares subject to an assumed or continued option will become fully vested and exercisable upon the date of such involuntary termination. Immediately prior to the consummation of a change in control, our outstanding purchase rights related to any outstanding options will terminate.

For purposes of the 2009 Plan, an involuntary termination generally means, during the 12 months following the closing of a change in control, either (1) a termination of service other than for misconduct (as defined in the 2009 Plan) or (2) a voluntary resignation following: a material diminution in the optionee's base compensation; a material diminution in the optionee's authority, duties, position or responsibilities; a material diminution in the authority, duties, position or responsibilities of the optionee's supervisor (including a requirement that an optionee report to a corporate officer or employee instead of directly to our board of directors); a material diminution in the budget over which the optionee retains authority; a relocation of the optionee's principal place of work to a location more than 50 miles away from the principal place of work prior to a change in control; or any other act or omission that constitutes a material breach by us of the 2009 Plan.

**Plan amendment or termination.** Our board of directors has the authority to amend, suspend or terminate our 2009 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent.

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***2014 Equity Incentive Plan***

Our board of directors adopted, and our stockholders approved our 2014 Equity Incentive Plan, or the 2014 Plan, in March 2014. The 2014 Plan will become effective on the date the registration statement of which this prospectus forms a part is declared effective by the SEC, or the IPO Date. The 2014 Plan will be the successor to our 2009 Plan, which is described above. Once the 2014 Plan becomes effective, no further grants will be made under the 2009 Plan.

***Stock Awards.*** Our 2014 Plan provides for the grant of ISOs to our employees and for the grant of NSOs, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance-based stock awards, performance-based cash awards and other forms of equity compensation to our employees, directors and consultants. Additionally, our 2014 Plan provides for the grant of performance cash awards to our employees, directors and consultants.

***Authorized shares.*** Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under the 2014 Plan after the IPO Date is 4,100,255, which is the sum of: (1) 1,695,652 shares; (2) the number of shares remaining available for issuance under our 2009 Plan at the time the 2014 Plan becomes effective; and (3) any shares subject to outstanding stock options or other stock awards that would have otherwise returned to our 2009 Plan (such as upon the expiration or termination of a stock option under such plan prior to its exercise). Additionally, the number of shares of our common stock reserved for issuance under our 2014 Plan will automatically increase on January 1 of each year, beginning on January 1, 2015 (assuming the 2014 Plan becomes effective in 2014) and ending on and including January 1, 2024, by 4.5% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors. The maximum number of shares that may be issued upon the exercise of ISOs under our 2014 Plan is 12,000,000.

Shares issued under our 2014 Plan include authorized but unissued or reacquired shares of our common stock. Shares subject to stock awards granted under our 2014 Plan that expire or terminate without being exercised in full, or that are paid out in cash rather than in shares, do not reduce the number of shares available for issuance under our 2014 Plan. Additionally, shares issued pursuant to stock awards under our 2014 Plan that we repurchase or that are forfeited, as well as shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award, become available for future grant under our 2014 Plan.

***Plan administration.*** Our board of directors, or a duly authorized committee of our board of directors, will administer our 2014 Plan. Our board of directors may also delegate to one or more of our officers the authority to (i) designate employees (other than officers) to receive specified stock awards, and (ii) determine the number of shares of our common stock to be subject to such stock awards. Subject to the terms of our 2014 Plan, the board of directors has the authority to determine the terms of awards, including recipients, the exercise, purchase or strike price of stock awards, if any, the number of shares subject to each stock award, the fair market value of a share of our common stock, the vesting schedule applicable to the awards, together with any vesting acceleration, and the form of consideration, if any, payable upon exercise or settlement of the award and the terms of the award agreements.

The board of directors has the power to modify outstanding awards under our 2014 Plan. The board of directors has the authority to reprice any outstanding option or stock appreciation right, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take

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any other action that is treated as a repricing under generally accepted accounting principles, with the consent of any adversely affected participant.

**Section 162(m) limits.** At such time as necessary for compliance with Section 162(m) of the Code, no participant may be granted stock awards covering more than 173,913 shares of our common stock (subject to adjustment to reflect any split of our common stock) under our 2014 Plan during any calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise price or strike price of at least 100% of the fair market value of our common stock on the date of grant. Additionally, no participant may be granted in a calendar year a performance stock award covering more than 173,913 shares of our common stock (subject to adjustment to reflect any split of our common stock) or a performance cash award having a maximum value in excess of \$2,000,000 under our 2014 Plan. These limitations are intended to give us the flexibility to grant compensation to covered employees that may qualify for the qualified performance-based compensation exception to the \$1,000,000 annual limitation on the income tax deductibility imposed by Section 162(m) of the Code.

**Non-employee director limits.** The maximum number of shares of our common stock subject to stock awards granted during a single fiscal year to any non-employee director, taken together with any cash fees paid to such non-employee director during the fiscal year, shall not exceed \$2,000,000 in total value (calculating the value of any such stock awards based on the grant date fair value of such stock awards for financial reporting purposes and excluding, for this purpose, the value of any dividend equivalent payments paid pursuant to any stock award granted in a previous fiscal year).

**Performance awards.** We believe our 2014 Plan permits the grant of performance-based stock and cash awards that may qualify as performance-based compensation that is not subject to the \$1,000,000 limitation on the income tax deductibility imposed by Section 162(m) of the Code. Our compensation committee may structure awards so that the stock or cash will be issued or paid only following the achievement of certain pre-established performance goals during a designated performance period. However, we retain the discretion to grant awards under the 2014 Plan that may not qualify for full deductibility.

Our compensation committee may establish performance goals by selecting from one or more performance criteria set forth in the 2014 Plan, including, but not limited to:

earnings before interest, taxes, depreciation and amortization;

total stockholder return;

return on equity or average stockholders' equity;

return on assets, investment, or capital employed;

stock price;

income (before or after taxes);

operating income;

pre-tax profit;

operating cash flow;

sales or revenue targets;

increases in revenue or product revenue;

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expenses and cost reduction goals;

improvement in or attainment of working capital levels;

implementation or completion of projects or processes;

employee retention;

stockholders' equity;

capital expenditures;

operating profit or net operating profit;

growth of net income or operating income;

initiation of phases of clinical trials and/or studies by specified dates;

patient enrollment rates;

budget management;

regulatory body approval with respect to products, studies and/or trials; and

to the extent that an award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by our board of directors.

***Corporate transactions; change in control.*** Our 2014 Plan provides that in the event of certain corporate transactions, as defined in the 2014 Plan, the following provisions will apply to outstanding stock awards, unless otherwise provided in a stock award agreement or any other written agreement between us and a participant, or unless otherwise expressly provided by our board of directors at the time of grant of a stock award:

The surviving or acquiring corporation (or its parent) may assume, continue or substitute similar stock awards for outstanding stock awards under the 2014 Plan and any reacquisition or repurchase rights held by us may be assigned to the surviving or acquiring corporation (or its parent); provided, that if any such stock awards are so assumed, continued or substituted, if a participant incurs an involuntary termination on or following the date of such corporate transaction, any unvested shares subject to such assumed, continued or substituted stock awards will vest in full as of the date of such termination;

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To the extent that outstanding stock awards are not so assumed, continued or substituted, the vesting and, if applicable, exercisability of any such stock awards held by participants whose continuous service has not terminated prior to the effective time of the corporate transaction will be accelerated in full to a date prior to the effective time of such corporate transaction, and such stock awards will terminate if not exercised (if applicable) at or prior to the effective time of such corporation transaction, and any reacquisition or repurchase rights held by us will lapse, contingent upon the effectiveness of such corporate transaction;

To the extent that outstanding stock awards are not so assumed, continued or substituted, the vesting and, if applicable, exercisability of any such stock awards held by participants whose continuous service has terminated prior to the effective time of the corporate transaction will not be accelerated and all unvested stock awards held by such participants will terminate if not exercised (if applicable) prior to the effective time of the corporate transaction, but any reacquisition or repurchase rights held by us may continue to be exercised notwithstanding such corporate transaction; or

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To the extent a stock award will terminate if not exercised prior to the effective time of a corporate transaction, our board of directors may provide that the holder of the stock award may not exercise the stock award, but instead will receive a payment, in such form as may be determined by our board of directors, equal in value to the excess, if any, of the value of the property the participant would have received upon exercise of the stock award over any exercise price payable by such holder in connection with such exercise.

A stock award may be subject to additional acceleration of vesting and exercisability upon or after a change in control, as defined in the 2014 Plan, as may be provided in the stock award agreement for such stock award or in any other written agreement between us and a participant, but in the absence of such a provision, no such acceleration will occur.

***Plan amendment or termination.*** Our board of directors has the authority to amend, suspend, or terminate our 2014 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No ISOs may be granted after the tenth anniversary of the date our board of directors adopted our 2014 Plan.

### **2014 Employee Stock Purchase Plan**

Our board of directors adopted, and our stockholders approved, our 2014 Employee Stock Purchase Plan, or the ESPP, in March 2014. The ESPP will become effective on the IPO Date.

The maximum aggregate number of shares of our common stock that may be issued under our ESPP is 150,000 shares (subject to adjustment to reflect any split of our common stock). Additionally, the number of shares of our common stock reserved for issuance under our ESPP will increase automatically each year, beginning on January 1, 2015 and continuing through and including January 1, 2024, by the lesser of (i) 1% of the total number of shares of our common stock outstanding on December 31 of the preceding calendar year; and (ii) 300,000 shares of common stock (subject to adjustment to reflect any split of our common stock). Our board of directors may act prior to the first day of any calendar year to provide that there will be no January 1 increase or that the increase will be for a lesser number of shares than would otherwise occur. Shares subject to purchase rights granted under our ESPP that terminate without having been exercised in full will not reduce the number of shares available for issuance under our ESPP.

Our board of directors will administer our ESPP. Our board of directors may delegate authority to administer our ESPP to our compensation committee.

Our employees, including executive officers, may have to satisfy one or more of the following service requirements before participating in our ESPP, as determined by the administrator: (i) customary employment for more than 20 hours per week and more than five months per calendar year, or (ii) continuous employment for a minimum period of time, not to exceed two years. An employee may not be granted rights to purchase stock under our ESPP if such employee (i) immediately after the grant would own stock possessing 5% or more of the total combined voting power or value of our common stock, or (ii) holds rights to purchase stock under our ESPP that would accrue at a rate that exceeds \$25,000 worth of our stock for each calendar year that the rights remain outstanding.

The administrator may approve offerings with a duration of not more than 27 months, and may specify one or more shorter purchase periods within each offering. Each offering will have one or more

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purchase dates on which shares of our common stock will be purchased for the employees who are participating in the offering. The administrator, in its discretion, will determine the terms of offerings under our ESPP. No offerings have been approved at this time.

Our ESPP permits participants to purchase shares of our common stock through payroll deductions with up to 15% of their earnings. The purchase price of the shares will be not less than 85% of the lower of the fair market value of our common stock on the first day of an offering or on the date of purchase.

A participant may not transfer purchase rights under our ESPP other than by will, the laws of descent and distribution or as otherwise provided under our ESPP.

In the event of a specified corporate transaction, such as a merger or sale of all or substantially all of our assets, a successor corporation may assume, continue or substitute each outstanding purchase right. If the successor corporation does not assume, continue or substitute for the outstanding purchase rights, the offering in progress will be shortened and the participants' accumulated contributions will be used to purchase shares within 10 business days prior to the effective date of the corporate transaction.

Our ESPP will remain in effect until terminated by the administrator in accordance with the terms of the ESPP. Our board of directors has the authority to amend, suspend or terminate our ESPP, at any time and for any reason.

### **Limitation on liability and indemnification matters**

Upon the closing of this offering, our amended and restated certificate of incorporation will contain provisions that limit the liability of our current and former directors for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

any breach of the director's duty of loyalty to the corporation or its 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; or

any transaction from which the director derived an improper personal benefit.

Such limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies, such as injunctive relief or rescission.

Our amended and restated certificate of incorporation and our amended and restated bylaws to be in effect upon the closing of this offering will provide that we are required to indemnify our directors to the fullest extent permitted by Delaware law. Our amended and restated bylaws will also provide that, upon satisfaction of certain conditions, we shall advance expenses incurred by a director in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. Our amended and restated certificate of incorporation and amended and restated bylaws will also provide our board of directors with discretion to indemnify our officers and employees when determined appropriate by the board. We have entered and expect to continue to

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enter into agreements to indemnify our directors and executive officers. With certain exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain customary directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the closing of this offering may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and 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 officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought and we are not aware of any threatened litigation that may result in claims for indemnification.

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### **Certain relationships and related party transactions**

Other than compensation arrangements, we describe below transactions and series of similar transactions, since January 1, 2011, to which we were a party or will be a party, in which:

the amounts involved exceeded or will exceed \$120,000; and

any of our directors, executive officers, or holders of more than 5% of our capital stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

Compensation arrangements for our directors and named executive officers are described elsewhere in this prospectus.

### **Sales of preferred stock**

In February 2014, we sold an aggregate of 48,758,857 shares of our Series E convertible preferred stock at a purchase price of \$1.128 per share for an aggregate purchase price of approximately \$55.0 million, of which 34,121,608 were sold to holders of more than 5% of our capital stock, including one group of affiliated holders that became a 5% stockholder pursuant to the transaction. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on the basis of 11.5 shares to one.

In February 2014, pursuant to the Series D Securities Purchase Agreement entered into in October 2013, we sold an aggregate of 13,168,291 shares of our Series D-2 convertible preferred stock at a purchase price of \$0.7594 per share for an aggregate purchase price of approximately \$10.0 million, of which 13,135,370 were sold to holders of more than 5% of our capital stock. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on the basis of 11.5 shares to one.

In October 2013, we sold an aggregate of 17,777,777 shares of our Series D-1 convertible preferred stock at a purchase price of \$0.5625 per share for an aggregate purchase price of approximately \$10.0 million, of which 17,733,333 were sold to holders of more than 5% of our capital stock. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on the basis of 11.5 shares to one.

In July 2013, we sold an aggregate of 22,222,222 shares of our Series C convertible preferred stock at a purchase price of \$0.5625 per share for an aggregate purchase price of approximately \$12.5 million. In January 2013, we sold an aggregate of 14,222,222 shares of our Series C convertible preferred stock at a purchase price of \$0.5625 per share for an aggregate purchase price of approximately \$8.0 million. All shares of our Series C convertible preferred stock were sold to holders of more than 5% of our capital stock. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on the basis of 11.5 shares to one.

In January 2013, we issued an aggregate of 10,195,552 shares of our Series B convertible preferred stock upon the conversion of outstanding notes at a purchase price of \$0.45 per share for an aggregate purchase price of approximately \$4.6 million. In May 2012, we sold an aggregate of 7,430,553 shares of our Series B convertible preferred stock at a purchase price of \$0.45 per share for an aggregate purchase price of approximately \$3.3 million. In January 2012, we sold an aggregate of 7,430,557 shares of our Series B convertible preferred stock at a purchase price of \$0.45 per share for

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an aggregate purchase price of approximately \$3.3 million. In February 2011, we sold an aggregate of 32,044,137 shares of our Series B convertible preferred stock at a purchase price of \$0.45 per share for an aggregate purchase price of approximately \$14.4 million. All shares of our Series B convertible preferred stock were sold to holders of more than 5% of our capital stock. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on the basis of 11.5 shares to one.

The following table summarizes purchases of shares of our convertible preferred stock from us by our executive officers, directors and holders of more than 5% of our capital stock since January 1, 2011. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on the basis of 11.5 shares to one.

| <b>Stockholder</b>   | <b>Number of<br/>shares of<br/>Series B<br/>convertible<br/>preferred<br/>stock</b> | <b>Number of<br/>shares of<br/>Series C<br/>convertible<br/>preferred<br/>stock</b> | <b>Number of<br/>shares of<br/>Series D-1<br/>convertible<br/>preferred<br/>stock</b> | <b>Number of<br/>shares of<br/>Series D-2<br/>convertible<br/>preferred<br/>stock</b> | <b>Number of<br/>shares of<br/>Series E<br/>convertible<br/>preferred<br/>stock</b> | <b>Total<br/>Purchase<br/>Price</b> |
|--|---|---|---|---|---|-------------------------------------|
| New Leaf Ventures II, L.P. <sup>(1)</sup>                    | 20,538,764  | 8,439,620   | 3,050,026   | 1,349,428   | 3,546,099   | \$ 20,730,125                       |
| Entities affiliated with Index Ventures <sup>(2)</sup>       | 8,849,001   | 8,156,189   | 1,629,968   | 718,610   |   | \$ 10,032,476                       |
| Entities affiliated with Advent Life Sciences <sup>(3)</sup> | 13,692,509  | 5,626,413   | 2,033,350   | 899,619   | 1,773,049   | \$ 13,153,416                       |
| Aisling Capital III, LP <sup>(4)</sup>                       |   | 14,222,222  | 1,479,993   | 654,796   | 5,486,820   | \$ 15,518,881                       |
| Dr. Willem Stemmer <sup>(5)</sup>                            | 12,674,846  |   |   |   |   | \$ 5,703,681                        |
| Entities affiliated with Amunix <sup>(6)</sup>               | 1,345,679   |   | 623,873   | 277,268   |   | \$ 1,167,041                        |
| Sofinnova Venture Partners VIII, L.P. <sup>(7)</sup>         |   |   | 8,916,123   | 9,229,853   | 5,585,144   | \$ 18,324,512                       |
| Entities affiliated with Fidelity Investments <sup>(8)</sup> |   |   |   |   | 17,730,496  | \$ 20,000,000                       |

(1) Michael Dybbs, a member of our board of directors, is a principal at New Leaf Venture Partners.

(2) Represents shares purchased by Index Ventures IV (Jersey), L.P., Index Ventures IV Parallel Entrepreneur Fund (Jersey), L.P. and Yucca Partners LP Jersey Branch. Francesco de Rubertis, a member of our board of directors, is a partner of Index Ventures.

(3) Represents shares purchased by Advent Life Sciences Fund I LP and Advent Life Sciences LLP. Shahzad Malik, a member of our board of directors, is a General Partner at Advent Venture Partners.

(4) Represents shares purchased by Aisling Capital III, LP. Anthony Sun, a member of our board of directors, is a Partner at Aisling Capital.

(5) Represents shares purchased by Dr. Willem Stemmer, our co-founder. The shares were subsequently transferred to Michael Harazin as Trustee on behalf of Dr. Stemmer's children.

(6) Includes shares purchased and held by Amunix, Inc. prior to the merger of Amunix, Inc. into Amunix Operating, Inc.

(7) Srinivas Akkaraju, a member of our board of directors, is a General Partner at Sofinnova Ventures.

(8) Represents shares purchased and held by Fidelity Select Portfolios: Biotechnology Portfolio, Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund, Fidelity Mt. Vernon Street Trust: Fidelity Series Growth Company Fund, Fidelity Mt. Vernon Street Trust: Fidelity Growth Company Fund and Fidelity Group Trust for Employee Benefit Plans: Fidelity Growth Company Commingled Pool.

**Table of Contents****Bridge financing**

In October 2012, we entered into a bridge loan financing, or the bridge financing, in which we issued (i) convertible promissory notes, or the notes, for an aggregate principal amount of \$4.5 million and (ii) warrants to purchase shares of our convertible preferred stock at the purchase price at which the notes convert into equity securities. The notes accrued interest at a rate of 8% per annum and had a maturity date of January 31, 2013. On January 7, 2013, the notes converted into 10,195,552 shares of our Series B convertible preferred stock. The warrants remain outstanding. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on the basis of 11.5 shares to one.

The following table summarizes the participation in the bridge financing by holders of more than 5% of our capital stock and their affiliated entities:

| <b>Name</b>   | <b>Aggregate Loan Amount</b> |
|---|------------------------------|
| Fund affiliated with New Leaf Venture Partners <sup>(1)</sup> | \$ 1,709,023                 |
| Funds affiliated with Index Ventures <sup>(2)</sup>           | \$ 1,651,628                 |
| Funds affiliated with Advent Life Sciences <sup>(3)</sup>     | \$ 1,139,349                 |

(1) Includes New Leaf Venture Partners II L.P.

(2) Includes Index Ventures IV (Jersey), L.P., Index Ventures Parallel Entrepreneur Fund (Jersey) and Yucca (Jersey) SLP.

(3) Includes Advent Life Sciences LLP and Advent Life Sciences Fund I LP.

**Investor rights agreement**

We are party to an investor rights agreement that provides holders of our convertible preferred stock, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors, with certain registration rights, including the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. The investor rights agreement also provided for a right of first refusal in favor of certain holders of our stock with regard to certain issuances of our capital stock. The rights of first refusal will not apply to, and will terminate upon, the closing of this offering. For a more detailed description of these registration rights, see the section of this prospectus entitled "Description of capital stock—Registration rights."

**Voting agreement**

We are party to a voting agreement under which certain holders of our capital stock, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors, have agreed to vote in a certain way on certain matters, including with respect to the election of directors. Upon the closing of this offering, the voting agreement will terminate, and none of our stockholders will have any special rights regarding the election or designation of members of our board of directors.

**Right of first refusal and co-sale agreement**

We are party to a right of first refusal and co-sale agreement with holders of our convertible preferred stock and our founders, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors, pursuant to which the holders of convertible preferred stock have a right of first refusal and co-sale in respect of certain sales of securities by our founders. Upon the closing of this offering, the right of first refusal and co-sale agreement will terminate.

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### **Indemnification agreements**

Our amended and restated certificate of incorporation, which will be effective upon the closing of this offering, will contain provisions limiting the liability of directors and our amended and restated bylaws will provide that we will indemnify each of our directors to the fullest extent permitted under Delaware law. Our amended and restated certificate of incorporation and amended and restated bylaws also will provide our board of directors with discretion to indemnify our officers and employees when determined appropriate by the board. In addition, we have entered and expect to continue to enter into agreements to indemnify our directors and executive officers. For more information regarding these agreements, see the section of this prospectus entitled "Executive compensation" Limitations on liability and indemnification matters.

### **Change in control arrangements**

We have entered into change in control severance benefits agreements with each of our executive officers, as described in greater detail in the section of this prospectus titled "Executive compensation" Change in control Change in control severance benefit plan.

### **Transactions with Amunix Operating, Inc. and its predecessors**

Since our inception, the company has entered into multiple agreements with Amunix Operating, Inc., or its predecessor, Amunix, Inc., which we collectively refer to as Amunix. Amunix, together with its affiliates, owns approximately 9% of our common stock outstanding as of December 31, 2013 and previously held a seat on our board of directors. Together with its affiliates, Amunix has been a significant stockholder since our inception.

We entered into a License Agreement with Amunix effective December 29, 2008, as amended, or the License Agreement, pursuant to which we received a license to develop certain product candidates in exchange for certain financial consideration. Under the terms of the licensing agreement, we are obligated to pay future royalties on any sale of the licensed products. In limited circumstances, we may also be obligated to pay milestones.

In December 2008, we entered into a Service Agreement with Amunix. Under the Service Agreement, Amunix has agreed to make covered products and marketed products for the company as contemplated by the Licensing Agreement. The Service Agreement was amended in July 2010. Under the Service Agreement, Amunix agreed to undertake and complete the research, development and other services related to the covered products and marketed products as are reasonably requested by us from time to time. The specific milestones, deliverables, specification and other terms with respect to any particular services project are to be detailed in mutually agreeable statements of work, which the parties are to negotiate (reasonably and in good faith) and execute promptly after our request for services. Under the terms of the Service Agreement, we are obligated to pay up to \$250,000 per year for each employee who performs full-time services to us, in addition to the fees set forth in any statement of work.

### **Transactions with Diartis, Inc.**

In December 2010, we sold certain assets to Diartis, Inc., or Diartis, in exchange for a promissory note for \$1,000,000. Jeffrey L. Cleland, our Chief Executive Officer and a member of our board of directors, was the Chief Executive Officer and a director of Diartis from its inception through March

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2013. In February 2011, we entered into a Services Agreement with Diartis whereby certain of our employees performed services for Diartis in connection with the transferred assets. The Services Agreement was terminated in March 2013. In February 2011, we made assigned interests in the promissory note due from Diartis to our stockholders and in September 2011, we distributed the note to our stockholders. At the time of the assignment and distribution of the note, we and our auditors had determined that the fair market value of the note was zero.

### **Policies and procedures for related party transactions**

Our board of directors will adopt a policy, effective upon the closing of this offering, that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of any class of our common stock and any members of the immediate family of any of the foregoing persons are not permitted to enter into a related person transaction with us without the prior consent of our audit committee. Any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of any class of our common stock or any member of the immediate family of any of the foregoing persons in which the amount involved exceeds \$120,000 and such person would have a direct or indirect interest must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the material facts of the transaction, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction. We did not have a formal review and approval policy for related party transactions at the time of any of the transactions described above. However, all of the transactions described above were entered into after presentation, consideration and approval by our board of directors, except as noted above.

**Table of Contents****Principal stockholders**

The following table sets forth information regarding the beneficial ownership of our common stock as of February 28, 2014 by the following:

each of our directors and named executive officers; and

each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock.

Beneficial ownership is determined according to the rules of the Securities and Exchange Commission and generally means that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power of that security, including options and warrants that are currently exercisable or exercisable within 60 days of February 28, 2014. Shares of our common stock issuable pursuant to stock options and warrants are deemed outstanding for computing the percentage of the person holding such options or warrants and the percentage of any group of which the person is a member but are not deemed outstanding for computing the percentage of any other person. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons named in the table below have sole voting and investment power with respect to all shares of common stock shown that they beneficially own, subject to community property laws where applicable. The information does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Section 13(d) and 13(g) of the Securities Act of 1933, as amended.

Our calculation of the percentage of beneficial ownership prior to this offering assumes the conversion of all shares of preferred stock into common stock on the basis of 11.5 shares to one and is based on 17,136,629 shares of common stock outstanding as of February 28, 2014 on an as-converted basis. Our calculation of the percentage of beneficial ownership after this offering is based on 23,136,629 shares of common stock outstanding immediately after the closing of this offering, assuming no exercise of outstanding options or warrants and no exercise of the underwriters' option to purchase additional shares of our common stock.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Versartis, Inc., 275 Shoreline Drive, Suite 450, Redwood City, CA 94065.

| Name of beneficial owner                                     | Number of<br>shares<br>beneficially owned<br>(as converted) | Percentage of shares beneficially owned |                       |
|--|---|---|-----------------------|
|  |   | Before the<br>offering                  | After the<br>offering |
| <b>5% Stockholders:</b>                                      |   |   |                       |
| New Leaf Ventures II, L.P. <sup>(1)</sup>                    | 3,311,930   | 19.3%                                   | 14.3%                 |
| Entities affiliated with Index Ventures <sup>(2)</sup>       | 2,703,791   | 15.7%                                   | 11.7%                 |
| Entities affiliated with Advent Life Sciences <sup>(3)</sup> | 2,156,558   | 12.6%                                   | 9.3%                  |
| Sofinnova Venture Partners VIII, L.P. <sup>(4)</sup>         | 2,086,978   | 12.2%                                   | 9.0%                  |
| Aisling Capital III, LP <sup>(5)</sup>                       | 1,934,568   | 11.3%                                   | 8.4%                  |
| Entities affiliated with Fidelity <sup>(6)</sup>             | 1,541,781   | 9.0%                                    | 6.7%                  |
| Michael Harazin, Trustee <sup>(7)</sup>                      | 1,102,160   | 6.4%                                    | 4.8%                  |
| Amunix Operating Inc. <sup>(8)</sup>                         | 1,034,881   | 6.0%                                    | 4.5%                  |

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| Name of beneficial owner   | Number of<br>shares<br>beneficially owned | Percentage of shares beneficially owned |                       |
|--|---|---|-----------------------|
|  |   | Before the<br>offering                  | After the<br>offering |
| Named Executive Officers and Directors:  |   |   |                       |
| Jeffrey Cleland <sup>(9)</sup>   | 368,936                                   | 2.1%                                    | 1.6%                  |
| Joshua Brumm   |   | *                                       | *                     |
| Paul Westberg <sup>(10)</sup>  | 73,876                                    | *                                       | *                     |
| Srinivas Akkaraju <sup>(4)</sup>   | 2,086,978                                 | 12.2%                                   | 9.0%                  |
| Michael Dybbs <sup>(11)</sup>  | 3,311,930                                 | 19.3%                                   | 14.3%                 |
| Edmon Jennings <sup>(12)</sup>   | 9,600                                     | *                                       | *                     |
| Shahzad Malik <sup>(3)</sup>   | 2,156,558                                 | 12.6%                                   | 9.3%                  |
| Francesco DeRubertis <sup>(13)</sup>   | 2,703,791                                 | 15.7%                                   | 11.7%                 |
| Anthony Sun <sup>(5)</sup>   | 1,934,568                                 | 11.3%                                   | 8.4%                  |
| Jay Shepard  |   | *                                       | *                     |
| John Varian  |   | *                                       | *                     |
| All executive officers and directors as a group<br>(11 persons): <sup>(14)</sup> | 12,646,237                                | 71.6%                                   | 53.5%                 |

\* Represents beneficial ownership of less than one percent (1%) of the outstanding common stock.

- (1) Includes 3,245,881 shares held by New Leaf Ventures II, L.P. ( NLV-II ) and includes 66,049 shares issuable to NLV-II pursuant to warrants exercisable within 60 days of February 28, 2014. New Leaf Venture Associates II, L.P. ( NLVA-II LP ) is the general partner of NLV-II and New Leaf Venture Management II, L.L.C. ( NLVM-II LLC ) is the general partner of NLVA-II LP. Philippe O. Chambon, Jeani Delagardelle, Ronald M. Hunt, Vijay K. Lathi, James Nidel and Liam Ratcliffe are individual managers of NLVM-II LLC (the Individual Managers ). NLVA-II LP and NLVM-II LLC disclaim beneficial ownership of such shares, except to the extent of their pecuniary interest therein. As one of six individual managers, each of the Individual Managers disclaims beneficial ownership over the shares, and in all events disclaims pecuniary interest except to the extent of his economic interest. The address for this stockholder is Times Square Tower, 7 Times Square, Suite 3502, New York, NY 10036.
- (2) Includes 2,391,810 shares held by Index Ventures IV (Jersey), L.P. ( Index Ventures IV ), 227,032 shares held by Index Ventures IV Parallel Entrepreneur Fund (Jersey), L.P. ( Entrepreneur Fund ) and 21,119 shares held by Yucca (Jersey) SLP ( Yucca ). Also includes 57,831 shares issuable to Index Ventures IV, 5,489 shares issuable to Entrepreneur Fund and 510 shares issuable to Yucca pursuant to warrants exercisable within 60 days of February 28, 2014. Index Venture Associates IV Limited, is the general partner of the Index Ventures IV and Entrepreneur Fund. Paul Willing, Sinéad Meehan, David Hall, Bernard Dallé and Phil Balderson are directors of Index Venture Associates IV Limited. Messrs. Willing, Hall, Dallé, Balderson and Ms. Meehan share voting and dispositive power with respect to the shares held by the Index Ventures IV limited partnerships. The corporate general partner of Yucca is Yucca Associates Limited. Messrs. Nigel T. Greenwood and Ian J. Henderson are directors of Yucca Associates Limited and share voting and dispositive power with respect to the shares held by Yucca. The address of the Index Ventures IV, Entrepreneur Fund and Yucca is Ogier House, The Esplanade, St Helier, Jersey JE4 9WG, Channel Islands.
- (3) Includes 2,027,015 shares held by Advent Life Sciences Fund I LP ( Advent Fund ) and 85,512 shares held by Advent Life Sciences LLP ( Advent Life Sciences ). Also includes 42,253 shares issuable to Advent Fund and 1,778 shares issuable to Advent Life Sciences pursuant to warrants exercisable within 60 days of February 28, 2014. Advent Life Sciences is the manager of Advent Fund. Mr. Malik, a member of our board of directors, is a partner of Advent Life Sciences. The address for each of these entities is 158-160 North Gower Street, London, NW1 2ND England.
- (4) The shares are owned directly by Sofinnova Venture Partners VIII, L.P. ( SVP VIII ). Sofinnova Management VIII, L.L.C. ( SM VIII ) is the general partner of SVP VIII. Each of Srinivas Akkaraju (a member of our board of directors), Anand Mehra, Michael Powell and James I. Healy is a managing member of SM VIII and may, along with SM VIII, be deemed to have shared voting and dispositive power over the shares owned by SVP VIII. Each of the managing members of SM VIII disclaims beneficial ownership except to the extent of their pecuniary interest therein. The address for these entities is 2800 Sand Hill Road, Suite 150, Menlo Park, CA 94025.

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- (5) The shares are held directly by Aisling Capital III, L.P. ( Aisling ). Aisling Capital Partners III, L.P. ( Aisling GP ) is the general partner of Aisling. Investment and voting decisions are made by an investment committee of Aisling GP, which currently consists of six members, including Dr. Sun. The investment committee shares voting and dispositive power over the shares held directly by Aisling. Dr. Sun disclaims beneficial ownership of the shares except to the extent of his indirect economic interests in Aisling and in connection with his role on the investment committee. The address for these entities is 888 Seventh Ave., 30th Floor, New York, NY 10106.
- (6) Includes 673,617 shares held in the name of Fidelity Select Portfolios: Biotechnology Portfolio, 611,594 shares held in the name of Fidelity Mt. Vernon Street Trust: Fidelity Growth Company Fund, 130,833 shares held in the name of Fidelity Mt. Vernon Street Trust: Fidelity Series Growth Company Fund, 97,274 shares held by Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund and 28,463 shares held by Fidelity Group Trust for Employee Benefit Plan: Fidelity Growth Company Commingled Pool (together, the Funds ). Fidelity Management & Research Company ( Fidelity ), a wholly-owned subsidiary of FMR LLC and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940, is the beneficial owner of the shares held by the Funds as a result of acting as investment adviser to various investment companies registered under Section 8 of the Investment Company Act of 1940. Each of Edward C. Johnson 3d and FMR LLC, through its control of Fidelity, and the funds each has sole power to dispose of the 1,541,781 Shares owned by the Funds. Members of the family of Edward C. Johnson 3d, Chairman of FMR LLC, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. Neither FMR LLC nor Edward C. Johnson 3d, Chairman of FMR LLC, has the sole power to vote or direct the voting of the shares owned directly by the Fidelity Funds, which power resides with the Funds' Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Funds' Boards of Trustees. The address for Fidelity is 82 Devonshire Street, Boston, MA 02109.
- (7) Includes 551,080 shares held by Michael Harazin, Trustee of the Shannon Stemmer 2012 Irrevocable Trust dated November 30, 2012 (the Shannon Stemmer Trust ) and 551,080 shares held by Michael Harazin, Trustee of the Arthur Stemmer 2012 Irrevocable Trust dated November 30, 2012 (the Arthur Stemmer Trust ). Mr. Harazin has sole voting and dispositive power over the shares held by each of the Shannon Stemmer Trust and Arthur Stemmer Trust. The address for this stockholder is 1804 Garnet Ave., #228, San Diego, CA 92109.
- (8) The shares are held by Amunix Operating, Inc. Volker Schellenberger is the Chief Executive Officer of Amunix Operating, Inc. and has sole voting and dispositive power over the shares held by it. The address for this stockholder is 500 Ellis St., Mountain View, CA 94043.
- (9) Includes 262,565 shares issuable pursuant to stock options exercisable within 60 days of February 28, 2014, of which 96,618 would be subject to a repurchase option as of such date, if exercised.
- (10) Represents shares issuable pursuant to stock options exercisable within 60 days of February 28, 2014, of which 20,397 would be subject to a repurchase option as of such date, if exercised.
- (11) Includes 3,245,881 shares held by New Leaf Ventures II, L.P. ( NLV-II ) and 66,049 shares issuable to NLV II pursuant to warrants exercisable within 60 days of February 28, 2014. New Leaf Associates II, L.P. ( NLVA-II LP ) is the general partner of NLV-II. New Leaf Venture Partners, L.L.C. ( NLVP LLC ) has contracted with NLV-II to provide certain management and administrative services to NLV-II. Dr. Dybbs is a limited partner of NLVA-II LP and is a Principal (employee) of NLVP LLC. Dr. Dybbs disclaims beneficial ownership over the shares reported herein, and in all events disclaims pecuniary interest except to the extent of his economic interest.
- (12) Represents shares issuable upon options exercisable within 60 days of February 28, 2014, of which 2,147 would be subject to repurchase at such date if exercised.
- (13) Mr. de Rubertis is a partner at Index Venture Management LLP, which is an advisory company to Index Ventures IV (Jersey), LP, Index Ventures IV Parallel Entrepreneur Fund (Jersey) L.P. and Yucca (Jersey) SLP (the Index Funds ). Mr. de Rubertis is involved in making recommendations to the Index Funds, but does not hold voting or dispositive power over the shares held by the Index Funds.
- (14) Consists of (i) 12,126,195 shares held by the current directors and executive officers and (ii) 520,042 shares issuable pursuant to warrants and stock options exercisable within 60 days of February 28, 2014 of which 119,162 would be subject to repurchase at such date if exercised.

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### **Description of capital stock**

#### **General**

The following description of our capital stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to the amended and restated certificate of incorporation and the amended and restated bylaws that will be in effect upon the closing of this offering. Copies of these documents will be filed with the Securities and Exchange Commission as exhibits to our registration statement, of which this prospectus forms a part. The descriptions of our common stock and convertible preferred stock reflect changes to our capital structure that will occur upon the closing of this offering.

Upon the closing of this offering, our amended and restated certificate of incorporation will provide for common stock and will authorize shares of undesignated preferred stock, the rights, preferences and privileges of which may be designated from time to time by our board of directors.

Upon the closing of this offering, our authorized capital stock will consist of 55,000,000 shares, all with a par value of \$0.0001 per share, of which:

50,000,000 shares are designated as common stock; and

5,000,000 shares are designated as preferred stock.

As of December 31, 2013, we had outstanding 120,648,174 shares of convertible preferred stock, all of which will be converted into 10,491,140 shares of our common stock immediately prior to the closing of this offering, and 1,257,311 shares of our common stock. Our outstanding capital stock was held by 27 stockholders of record as of December 31, 2013. As of December 31, 2013, we also had outstanding options to acquire 1,403,655 shares of common stock held by employees, directors and consultants pursuant to our 2009 Equity Incentive Plan, having a weighted-average exercise price of \$1.90 per share, and warrants to purchase 173,912 shares of our convertible preferred stock.

On February 4, 2014, we issued 13,168,291 shares of our Series D-2 convertible preferred stock, all of which will be converted into 1,145,070 shares of our common stock immediately prior to the closing of this offering. On February 14, 2014, we issued 48,758,857 shares of our Series E convertible preferred stock, all of which will be converted into 4,239,894 shares of our common stock immediately prior to the closing of this offering. In addition, since December 31, 2013, we have issued options to purchase 537,194 shares of our common stock at a weighted-average exercise price of \$8.09 per share.

#### **Common stock**

##### ***Voting rights***

Each holder of our common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders, except as otherwise required by statute. Except as otherwise provided by statute or by applicable stock exchange rules, in all matters other than the election of directors, stockholders may take action with the affirmative vote of the majority of shares present in person, by remote communication, if applicable, or represented by proxy at a stockholder meeting and entitled to vote generally on the subject matter. Cumulative voting for the election of directors is not provided for in our amended and restated certificate of incorporation. Except as

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otherwise provided by statute, stockholders may elect directors by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy at a stockholder meeting and entitled to vote generally on the election of directors.

### ***Economic rights***

***Dividends and distributions.*** Subject to preferences that may apply to any shares of convertible preferred stock outstanding at the time, the holders of outstanding shares of our common stock are entitled to receive dividends out of funds legally available at the times and in the amounts that our board of directors may determine.

***Liquidation rights.*** Upon our 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 convertible preferred stock outstanding at that time after payment of liquidation preferences, on any outstanding shares of convertible preferred stock and payment of other claims of creditors.

The rights, preferences, and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of holders of shares of any series of convertible preferred stock that we may designate and issue in the future.

***Preemptive or similar rights.*** Our common stock is not entitled to preemptive rights and is not subject to conversion or redemption.

### **Preferred stock**

As of December 31, 2013, there were 120,648,174 shares of our convertible preferred stock outstanding.

Our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of 5,000,000 shares of preferred stock in one or more series and authorize their issuance. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of our common stock. The issuance of our preferred stock could adversely affect the voting power of holders of our common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action. Upon the closing of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

### **Warrants**

As of December 31, 2013, we had six warrants to purchase an aggregate of 1,999,997 shares of our Series B convertible preferred stock with an exercise price of \$0.45 per share outstanding. Each of these warrants has a net exercise provision under which the holder, in lieu of payment of the exercise price in cash, can surrender the warrant and receive a net number of shares of our common stock based on the fair market value of such stock at the time of exercise of the warrant after deduction of the aggregate exercise price. Unless earlier exercised, these warrants will expire on the earlier of (i) the

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closing of this offering, (ii) a sale of the company, or (iii) October 12, 2017; provided that if a holder of the warrants does not notify us of the holder's intent to exercise or not to exercise the warrant prior to the expiration date, and the fair market value of the underlying shares on the expiration date is greater than the exercise price, then the holder will be deemed to have net exercised the warrant immediately prior to the expiration date.

**Registration rights**

***Stockholder registration rights***

We are party to an investor rights agreement which provides that holders of shares of our convertible preferred stock have certain registration rights, as set forth below. This investor rights agreement was entered into in December 2008 and has been amended and/or restated from time to time in connection with our preferred stock financings, most recently as of February 14, 2014. The registration of shares of our common stock pursuant to the exercise of registration rights described below would enable the holders to sell these shares without restriction under the Securities Act of 1933, as amended, when the applicable registration statement is declared effective. We will pay the registration expenses, other than underwriting discounts and commissions, of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below.

Generally, in an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares such holders may include. The demand, piggyback and Form S-3 registration rights described below terminate upon the earliest to occur of: (i) the date that is five years after the closing of this offering (or, if the stockholder is our affiliate, the date that is six years following the closing of this offering); (ii) with respect to each stockholder, the earlier of the date that all shares held by the stockholder can be sold in compliance with Rule 144 or if the stockholder holds one percent or less of our outstanding common stock and all such shares can be sold in any three-month period in compliance with Rule 144; or (iii) with respect to each stockholder, the date that the stockholder no longer holds any shares that carry these registration rights; or (iv) following a sale of all or substantially all of our assets, our merger with or into another company, or our liquidation and dissolution.

***Demand registration rights***

The holders of an aggregate of 16,005,012 shares of our common stock, issuable upon the conversion of outstanding convertible preferred stock and shares of convertible preferred stock currently subject to outstanding warrants will be entitled to certain demand registration rights. At any time beginning 180 days after the closing of our initial public offering, the holders of a majority of these shares may, on not more than two occasions, request that we file a registration statement having an aggregate offering price to the public of not less than \$5,000,000 to register all or a portion of their shares.

***Piggyback registration rights***

In connection with this offering, the holders of an aggregate of 16,005,012 shares of our common stock, issuable upon the conversion of outstanding convertible preferred stock and shares of convertible preferred stock currently subject to outstanding warrants were entitled to, and the necessary percentage of holders waived, their rights to include their shares of registrable securities in this offering. In the event that we propose to register any of our securities under the Securities Act of 1933,

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as amended, either for our own account or for the account of other security holders, the holders of these shares will be entitled to certain piggyback registration rights allowing them to include their shares in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act of 1933, as amended, including a registration statement on Form S-3 as discussed below, other than with respect to a demand registration or a registration statement on Forms S-4 or S-8, the holders of these shares are entitled to notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of shares included in the registration, to include their shares in the registration. However, in no event shall the amount of securities of the selling stockholders included in the offering be reduced below thirty percent of the total amount of securities included in such offering.

### ***Form S-3 registration rights***

The holders of an aggregate of 16,005,012 shares of our common stock, issuable upon the conversion of outstanding convertible preferred stock and shares of convertible preferred stock currently subject to certain outstanding warrants, will be entitled to certain Form S-3 registration rights, provided that we have not already effected two such registrations within the twelve-month period preceding the date of such request. Such holders may make a request that we register their shares on Form S-3 if we are qualified to file a registration statement on Form S-3. Such request for registration on Form S-3 must cover securities the aggregate offering price of which, before payment of underwriting discounts and commissions, is at least \$3,000,000.

### **Anti-takeover provisions**

#### ***Certificate of incorporation and bylaws to be in effect upon the closing of this offering***

Our amended and restated certificate of incorporation to be in effect upon the completion of this offering will provide for our board of directors to be 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. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the voting power of our shares of common stock outstanding will be able to elect all of our directors. The directors may be removed by the stockholders only for cause upon the vote of holders of a majority of the shares then entitled to vote at an election of directors. Furthermore, the authorized number of directors may be changed only by resolution of our board of directors, and vacancies and newly created directorships on our board of directors may, except as otherwise required by law or determined by our board, only be filled by a majority vote of the directors then serving on the board, even though less than a quorum. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that all stockholder actions must be effected at a duly called meeting of stockholders and not by a consent in writing. A special meeting of stockholders may be called only by a majority of our whole board of directors, the chair of our board of directors, our chief executive officer or our president. Our amended and restated bylaws also will provide that stockholders seeking to present proposals before a meeting of stockholders to nominate candidates for election as directors at a meeting of stockholders must provide timely advance notice in writing, and will specify requirements as to the form and content of a stockholder's notice.

Our amended and restated certificate of incorporation will further provide that, immediately after this offering, the affirmative vote of holders of at least  $66\frac{2}{3}\%$  of the voting power of all of the then outstanding shares of voting stock, voting as a single class, will be required to amend certain

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provisions of our certificate of incorporation, including provisions relating to the structure of our board of directors, the size of the board, removal of directors, special meetings of stockholders, actions by written consent and cumulative voting. The affirmative vote of holders of at least  $66\frac{2}{3}\%$  of the voting power of all of the then outstanding shares of voting stock, voting as a single class, will be required to amend or repeal our bylaws, although our bylaws may be amended by a simple majority vote of our board of directors.

The foregoing provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of the company by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change the control of the company.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of the company. These provisions are also designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy rights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of deterring hostile takeovers or delaying changes in control of the company or our management. As a consequence, these provisions also may inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

### ***Section 203 of the Delaware general corporation law***

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon closing of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned by (i) persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least  $66\frac{2}{3}\%$  of the outstanding voting stock that is not owned by the interested stockholder.

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In general, Section 203 defines 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;

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 or 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 loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person who, together with the person's affiliates and associates, beneficially owns, or 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.

## **Limitations of liability and indemnification**

See the section of this prospectus entitled "Executive compensation" Limitation on liability and indemnification matters.

## **Listing**

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

## **Transfer agent and registrar**

Upon the closing of this offering, the transfer agent and registrar for our common stock will be American Stock Transfer & Trust Company.

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### **Shares eligible for future sale**

Prior to this offering, there has been no public market for our capital stock. 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.

Based on the number of shares outstanding as of December 31, 2013, including the shares of common stock issuable upon conversion of the shares of convertible preferred stock we issued in February 2014 and the net exercise of all of our outstanding warrants, upon the closing of this offering, 23,262,323 shares of our common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares of common stock and no exercise of outstanding options. Of the outstanding shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, may only be sold in compliance with the limitations described below.

The remaining shares of our common stock outstanding after this offering are restricted securities as such term is defined in Rule 144 under the Securities Act, or are subject to lock-up agreements with us as described below. In addition, any shares sold in this offering to our existing stockholders that are our affiliates will be subject to lock-up agreements. Following the expiration of the lock-up period, restricted securities may be sold in the public market only if registered or if they qualify for an exemption from registration under Rule 144 or 701 promulgated under the Securities Act, described in greater detail below.

### **Rule 144**

In general, a person who has beneficially owned restricted shares of our common stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding a sale and (ii) we are subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, for at least 90 days before the sale. Persons who have beneficially owned restricted shares of our common stock for at least six months but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

1% of the number of shares of our common stock outstanding after this offering, which will equal approximately 232,623 shares immediately after the closing of this offering, based on the number of common shares outstanding as of December 31, 2013 and assuming no exercise of the underwriters' option to purchase additional shares of our common stock; or

the average weekly trading volume of our common stock on NASDAQ during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale;

provided, in each case, that we are subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended, for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

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### **Rule 701**

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers, directors or consultants who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares

### **Lock-up agreements**

We, our directors and officers, and substantially all of our stockholders and optionholders have agreed with the underwriters that for a period of 180 days following the date of this prospectus, subject to certain exceptions, we will not offer, sell, assign, transfer, pledge, contract to sell or otherwise dispose of or hedge any shares of our common stock or any securities convertible into or exchangeable for shares of our common stock, subject to specified exceptions. Morgan Stanley & Co. LLC and Citigroup Global Markets Inc. may, in their sole discretion, at any time, release all or any portion of the shares from the restrictions in this agreement.

### **Registration rights**

The holders of our convertible preferred stock and certain warrants to purchase shares of our convertible preferred stock, or their transferees, are entitled to certain rights with respect to the registration of those shares under the Securities Act of 1933, as amended. For a description of these registration rights, see the section of this prospectus entitled "Description of capital stock—Registration rights." If these shares are registered, they will be freely tradable without restriction under the Securities Act of 1933, as amended.

### **Equity incentive plans**

As soon as practicable after the closing of this offering, we intend to file a Form S-8 registration statement under the Securities Act of 1933, as amended, to register shares of our common stock issued or reserved for issuance under our equity compensation plans and agreements. This registration statement will become effective immediately upon filing, and shares covered by this registration statement will thereupon be eligible for sale in the public markets, subject to vesting restrictions, the lock-up agreements described above and Rule 144 limitations applicable to affiliates. For a more complete discussion of our equity compensation plans, see the section of this prospectus entitled "Executive compensation—Equity incentive plans."

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### **Material United States federal income tax consequences to non-U.S. holders**

The following is a summary of the material United States federal income and estate tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all potential United States federal income tax consequences relating thereto, does not address the potential application of the Medicare contribution tax and does not address any gift tax consequences or any tax consequences arising under any state, local or foreign tax laws, or any other United States federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions and published rulings and administrative pronouncements of the Internal Revenue Service, or IRS, all as in effect as of the date of this prospectus. These authorities may change, possibly retroactively, resulting in United States federal income tax consequences different from those discussed below.

This discussion is limited to non-U.S. holders who purchase our common stock issued pursuant to this offering and who hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the United States federal income tax consequences that may be relevant to a particular holder in light of such holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the United States federal income tax laws, including, without limitation, certain former citizens or long-term residents of the United States, partnerships or other pass-through entities, controlled foreign corporations, passive foreign investment companies, corporations that accumulate earnings to avoid United States federal income tax, banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-exempt organizations, tax-qualified retirement plans, persons subject to the alternative minimum tax, persons that own, or have owned, actually or constructively, more than 5% of our common stock and persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy.

**PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER UNITED STATES FEDERAL TAX LAWS.**

#### **Definition of non-U.S. holder**

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a United States person or a partnership (including any entity or arrangement treated as a partnership) for United States federal income tax purposes. A United States person is any of the following:

an individual citizen or resident of the United States;

a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;

an estate, the income of which is subject to United States federal income tax regardless of its source; or

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a trust (1) whose administration is subject to the primary supervision of a United States court and which has one or more United States persons who have the authority to control all substantial decisions of the trust, or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a United States person.

### **Distributions on our common stock**

If we make cash or other property distributions on our common stock, such distributions will constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. Amounts not treated as dividends for United States federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's tax basis in our common stock, but not below zero. Any excess will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described under the section of this prospectus entitled "Gain on disposition of our common stock" below.

Dividends (out of earnings and profits) paid to a non-U.S. holder of our common stock generally will be subject to United States federal withholding tax at a rate of 30% of the gross amount of the dividends, or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form) including a United States taxpayer identification number and certifying such holder's qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. If the non-U.S. holder holds the stock through a financial institution or other agent acting on the non-U.S. holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on our common stock are effectively connected with such holder's United States trade or business (and are attributable to such holder's permanent establishment in the United States if required by an applicable tax treaty), the non-U.S. holder will be exempt from United States federal withholding tax. To claim the exemption, the non-U.S. holder must generally furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form).

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder's United States trade or business (and if an income tax treaty applies, are attributable to a permanent establishment maintained by the non-U.S. holder in the United States) generally will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in much the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-U.S. holders should consult any applicable income tax treaties that may provide for different rules.

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### **Gain on disposition of our common stock**

Subject to the discussion below regarding backup withholding and FATCA, a non-U.S. holder generally will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of our common stock, unless:

the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and if an income tax treaty applies, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States;

the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or

our common stock constitutes a United States real property interest by reason of our status as a United States real property holding corporation, or USRPHC, for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock, and our common stock has ceased to be regularly traded on an established securities market prior to the beginning of the calendar year in which the sale or other disposition occurs. The determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests. We believe we are not currently and do not anticipate becoming a USRPHC for United States federal income tax purposes.

Gain described in the first bullet point above generally will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-U.S. holders should consult any applicable income tax treaties that may provide for different rules.

Gain described in the second bullet point above will be subject to United States federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by United States-source capital losses (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed United States federal income tax returns with respect to such losses.

### **Information reporting and backup withholding**

We must report annually to the IRS and to each non-U.S. holder the amount of dividends on our common stock paid to such holder and the amount of any tax withheld with respect to those dividends. These information reporting requirements apply even if no withholding was required because the dividends were effectively connected with the holder's conduct of a United States trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Backup withholding, currently at a 28% rate, generally will not apply to payments to a non-U.S. holder of dividends on or the gross proceeds of a disposition of our common stock provided the non-U.S. holder furnishes to us or our paying agent the required

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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 or our paying agent has actual knowledge, or reason to know, that the holder is a United States person who is not an exempt recipient.

Backup withholding is not an additional tax. If any amount is withheld under the backup withholding rules, the non-U.S. holder should consult with a United States tax advisor regarding the possibility of and procedure for obtaining a refund or a credit against the non-U.S. holder's United States federal income tax liability, if any.

### **Legislation affecting taxation of our common stock held by or through foreign entities**

Sections 1471 through 1474 of the Code (commonly referred to as FATCA) will impose a United States federal withholding tax of 30% on certain payments made to a foreign financial institution (as specially defined under these rules) unless such institution enters into an agreement with the United States government to withhold on certain payments and to collect and provide to the United States tax authorities substantial information regarding United States account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with United States owners) or an exemption applies. FATCA also generally will impose a United States federal withholding tax of 30% on certain payments made to a non-financial foreign entity unless such entity provides the withholding agent a certification identifying the direct and indirect United States owners of the entity or an exemption applies. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. Under certain transition rules, these withholding taxes will be imposed on dividends paid on our common stock after June 30, 2014, and on gross proceeds from sales or other dispositions of our common stock after December 31, 2016.

Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of this legislation on their investment in our common stock.

### **Estate tax**

Individual non-U.S. holders and entities whose property is potentially includible in such an individual's gross estate for United States federal estate tax purposes (for example, a trust funded by such an individual and with respect to which the individual has retained certain interests or powers), should note that, absent an applicable treaty benefit, our common stock will be treated as United States situs property subject to United States federal estate tax.

**Table of Contents****Underwriting**

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC and Citigroup Global Markets Inc. are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them, the number of shares indicated below:

| <b>Name</b>                   | <b>Number of<br/>shares</b> |
|-------------------------------|-----------------------------|
| Morgan Stanley & Co. LLC      |                             |
| Citigroup Global Markets Inc. |                             |
| Cowen and Company, LLC        |                             |
| Canaccord Genuity Inc.        |                             |
| <b>Total:</b>                 | <b>6,000,000</b>            |

The underwriters and the representatives are collectively referred to as the underwriters and the representatives, respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' option to purchase additional shares described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the public offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of \$      a share under the public offering price. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representatives.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to 900,000 additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional 900,000 shares of our common stock.

|   | <b>Per share</b> | <b>Total</b>       |                      |
|---|------------------|--------------------|----------------------|
|   |                  | <b>No exercise</b> | <b>Full exercise</b> |
| 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 \$2.4 million. We have agreed to reimburse the underwriters for expenses of approximately \$25,000 relating to the clearance of this offering with the Financial Industry Regulatory Authority, Inc.

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

In connection with our initial public offering, we and all directors and officers and the holders of substantially all of our outstanding stock and stock options have agreed that, without the prior written consent of Morgan Stanley & Co. LLC and Citigroup Global Markets Inc. on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus, or the restricted period:

offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock; or

enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock;

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, without the prior written consent of Morgan Stanley & Co. LLC and Citigroup Global Markets Inc. on behalf of the underwriters, (i) our directors and officers and such holders will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock and (ii) we will not file any registration statement relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock (other than on Form S-8 with respect to our equity incentive plans).

The restrictions described in the immediately preceding paragraph do not apply to:

the sale of shares to the underwriters;

our issuance of common stock upon the exercise of an option or a warrant or the conversion of a security outstanding on the date of this prospectus and disclosed in this prospectus;

our issuance of common stock or other securities convertible into or exercisable for shares of common stock pursuant to our equity incentive plans described in this prospectus;

our entry into an agreement providing for the issuance of shares of common stock or any security convertible into or exercisable for shares of common stock in connection with joint ventures or other strategic transactions, and the issuance of securities pursuant to any such agreement, provided that, the aggregate number of shares of common stock that we may sell or issue or agree to sell or issue shall not exceed 10% of the total number of shares of common stock issued and outstanding immediately following the closing of this offering;

the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock provided that (i) such plan does not provide for the transfer of common stock during the 180 day period described in the preceding paragraph

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and (ii) to the extent a public announcement or filing under the Exchange Act is required of or voluntarily made by or on behalf of the lock-up signatory or us regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the 180 day period referenced in the preceding paragraph;

transfers of shares as a bona fide gift, distributions to limited partners, members or stockholders, transfers by will or intestate succession or to an immediate family member of the transferor or to any trust for the direct or indirect benefit of the transferor or the immediate family of the transferor, not involving a change in beneficial ownership, or if the transferor is a trust, to any beneficiary of the transferor or to the estate of any such transferor;

distributions of shares of common stock or any security convertible into common stock to stockholders, direct or indirect affiliates, current or former partners (general or limited), members or managers of the distributor, as applicable, or to the estates of any such partners, members or managers;

transactions relating to shares of common stock or other securities acquired in open market transactions after the closing of this offering;

transfers of common stock or any security convertible into or exchangeable for common stock that occurs by operation of law pursuant to a qualified domestic order or in connection with a divorce settlement or other court order;

transfers of common stock or any security convertible into or exchangeable for common stock pursuant to agreements under which we have the option to repurchase such shares or a right of first refusal with respect to transfers of such shares;

for certain stockholders, transfers in connection with a transaction involving a change of control occurring after the closing of this offering; and

for certain stockholders, transfers of shares of common stock acquired in this offering.

No filing under Section 16(a) of the Exchange Act shall be required or voluntarily made during the lock-up period for any transfer pursuant to the exceptions referenced in bullets six, seven, eight and twelve above or the restrictions described above will apply. The transferee, distributee or recipient of shares shall sign and deliver a lock-up letter in bullets three, four, six, seven, and nine above or the restrictions described above will apply. In the event that Morgan Stanley & Co. LLC and Citigroup Global Markets Inc. release any officer, director or stockholder holding five percent or more of our outstanding shares of common stock from the restrictions of any lock-up letter with respect to shares in excess of a maximum number of permitted shares, then certain stockholders shall be concurrently released in the same manner and on the same terms from the restrictions of their own lock-up letter for that percentage of the total number of shares of common stock held by such certain stockholder equal to the same percentage of such other five percent stockholder's shares released.

Morgan Stanley & Co. LLC and Citigroup Global Markets Inc., in their sole discretion, may release our common stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of our common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting

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agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the option to purchase additional shares. The underwriters can close out a covered short sale by exercising the option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the option to purchase additional shares. The underwriters may also sell shares in excess of the option to purchase additional shares, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock on NASDAQ to stabilize the price of our common stock. These activities may raise or maintain the market price of our common stock above independent market levels or prevent or retard a decline in the market price of our common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

**Pricing of the offering**

Prior to this offering, there has been no public market for our common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

**Selling restrictions**

***European Economic Area***

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State ) an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

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- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

***United Kingdom***

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000, as amended (the FSMA )) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

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### **Legal matters**

Cooley LLP, San Francisco and Palo Alto, California, will pass upon the validity of the shares of common stock offered hereby. The underwriters are being represented by Davis Polk & Wardwell LLP, Menlo Park, California, in connection with the offering.

### **Experts**

The financial statements of Versartis, Inc. as of December 31, 2012 and 2013, and for each of the two years in the period ended December 31, 2013, and, cumulatively, for the period from December 10, 2008 (date of inception) to December 31, 2013, included in this Prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

### **Where you can find more information**

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to this offering of our common stock. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some items of which are 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 common stock, we refer you to the registration statement, including the exhibits and the financial statements and notes 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. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The exhibits to the registration statement should be referenced for the complete contents of these contracts and documents. A copy of the registration statement and the exhibits filed therewith may be inspected without charge at the public reference room of the SEC, located at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference rooms by calling the 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](http://www.sec.gov).

As a result of this offering, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, we will file periodic reports, proxy statements, and other information with the SEC. These periodic reports, proxy statements, and other information will be 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.versartis.com](http://www.versartis.com). After the closing of this offering, you may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference into this prospectus.

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**VERSARTIS, INC.**

**(A development stage company)**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of

Versartis, Inc.

In our opinion, the accompanying balance sheets and the related statements of operations and comprehensive loss, of changes in convertible preferred stock and stockholders' deficit and of cash flows present fairly, in all material respects, the financial position of Versartis, Inc. (a development stage company) at December 31, 2013 and 2012, and the results of its operations and comprehensive loss and its cash flows for the years then ended and, cumulatively, for the period from December 10, 2008 (date of inception) to December 31, 2013 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States), which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

San Jose, California

February 17, 2014, except for the effects of the reverse stock split described in Note 16, as to which the date is March 6, 2014

**Table of Contents****VERSARTIS, INC.****(A development stage company)****BALANCE SHEETS***(in thousands, except share and per share data)*

|  | <b>December 31,</b> |             | <b>Pro forma<br/>Stockholders<br/>Equity<br/>December 31,<br/>2013<br/>(unaudited)</b> |
|--|---------------------|-------------|--|
|  | <b>2012</b>         | <b>2013</b> |  |
| <b>Assets</b>  |                     |             |  |
| Current assets   |                     |             |  |
| Cash and cash equivalents  | \$ 329              | \$ 13,213   |  |
| Restricted cash  | 75                  | 75          |  |
| Prepaid expenses and other current assets  | 1,618               | 978         |  |
| Other receivable   | 84                  |             |  |
| Total current assets   | 2,106               | 14,266      |  |
| Other assets   | 55                  | 396         |  |
| Property and equipment, net  | 28                  | 21          |  |
| Total assets   | \$ 2,189            | \$ 14,683   |  |
| <b>Liabilities, convertible preferred stock and stockholders equity (deficit)</b>  |                     |             |  |
| Current liabilities  |                     |             |  |
| Accounts payable   | \$ 991              | \$ 315      |  |
| Accrued liabilities  | 1,400               | 3,668       |  |
| Convertible notes payable  | 4,460               |             |  |
| Total current liabilities  | 6,851               | 3,983       |  |
| Convertible preferred stock warrant liability  | 433                 | 474         |  |
| Convertible preferred stock call option liability  |                     | 21          |  |
| Total liabilities  | 7,284               | 4,478       |  |
| Commitments and contingencies (Note 7)   |                     |             |  |
| Convertible preferred stock, \$0.0001 par value; 68,905,248, and 135,816,462 shares authorized at December 31, 2012 and 2013, respectively; 68,905,247 and 120,648,174 shares issued and outstanding at December 31, 2012 and 2013, respectively; \$31,007 | 29,647              | 57,497      |  |

and \$60,392 liquidation preference at December 31, 2012 and 2013 respectively; no shares authorized, issued and outstanding pro forma at December 31, 2013 (unaudited)

Stockholders' deficit

Common stock, \$0.0001 par value, 6,956,521 and 15,652,174 shares authorized at December 31, 2012 and December 31, 2013, respectively; 133,707 and 1,257,311 shares issued and outstanding at December 31, 2012 and 2013, respectively; 11,877,359 shares issued and outstanding, pro forma (unaudited)

|   |          |           |           |   |
|---|----------|-----------|-----------|---|
|   |          |           |           | 1 |
| Additional paid-in capital  | 507      | 6,454     | 65,883    |   |
| Deficit accumulated during the development stage                                  | (35,249) | (53,746)  | (55,184)  |   |
| Total stockholders' equity (deficit)  | (34,742) | (47,292)  | \$ 10,700 |   |
| Total liabilities, convertible preferred stock and stockholders' equity (deficit) | \$ 2,189 | \$ 14,683 |           |   |

The accompanying notes are an integral part of these financial statements.

Table of Contents**VERSARTIS, INC.****(A development stage company)****STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS***(in thousands, except share and per share data)*

|  | <b>Year Ended December 31,</b> |             | <b>Cumulative<br/>Period From<br/>December 10,<br/>2008 (Date<br/>of<br/>Inception)<br/>to<br/>December 31,<br/>2013</b> |
|--|--------------------------------|-------------|--|
|  | <b>2012</b>                    | <b>2013</b> |  |
| <b>Operating expenses</b>  |                                |             |  |
| Research and development   | \$ 10,963                      | \$ 14,855   | \$ 45,873  |
| General and administrative   | 1,936                          | 4,428       | 10,141   |
| Total operating expenses   | 12,899                         | 19,283      | 56,014   |
| Loss from operations   | (12,899)                       | (19,283)    | (56,014)   |
| Interest income  |                                | 1           | 3  |
| Interest expense   | (393)                          | (128)       | (863)  |
| Other income (expense), net  | 75                             | 913         | 2,030  |
| Net loss and comprehensive loss  | (13,217)                       | (18,497)    | (54,844)   |
| Accretion of Series A preferred stock to redemption value,<br>net of extinguishment                        |                                |             | 1,098  |
| Net loss attributable to common stockholders   | \$ (13,217)                    | \$ (18,497) | \$ (53,746)  |
| Net loss per basic and diluted share attributable to<br>common stockholders                                | \$ (114.71)                    | \$ (41.10)  |  |
| Weighted-average common shares used to compute basic<br>and diluted net loss per share                     | 115,219                        | 450,000     |  |
| Pro forma net loss per share attributable to common<br>stockholders (unaudited) (Refer to Note 15).        |                                | \$ (1.99)   |  |
| Pro forma weighted-average common shares outstanding,<br>basic and diluted (unaudited) (Refer to Note 15). |                                | 9,698,363   |  |

The accompanying notes are an integral part of these financial statements.

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Table of Contents**VERSARTIS, INC.****(A development stage company)****STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS DEFICIT***(in thousands, except share and per share data)*

|   | <b>Convertible<br/>Preferred Stock</b> |               | <b>Common Stock</b> |               | <b>Additional<br/>Paid-In<br/>Capital</b> | <b>Deficit<br/>Accumulated<br/>During<br/>the<br/>Development<br/>Stage</b> | <b>Total<br/>Stockholders<br/>Deficit</b> |
|---|--|---------------|---------------------|---------------|---|---|---|
|   | <b>Shares</b>                          | <b>Amount</b> | <b>Shares</b>       | <b>Amount</b> | <b>Capital</b>                            |   |   |
| <b>Balances at inception<br/>(December 10, 2008)</b>  |  | \$            |                     | \$            | \$  | \$  | \$  |
| Issuance of Series A<br>convertible preferred stock<br>valued at \$0.0001 per share<br>in consideration for<br>research and development<br>license in December 2008 | 11,000,000                             | 1             |                     |               |   |   |   |
| Accretion to redemption<br>value of convertible<br>preferred stock  |  | 10,999        |                     |               |   | (10,999)  | (10,999)                                  |
| Issuance of Series A<br>convertible preferred stock<br>for cash at \$1.00 per share,<br>net of issuance costs of \$3,<br>in May and December 2009<br>and April 2010 | 11,000,000                             | 10,997        |                     |               |   |   |   |
| Accretion to redemption<br>value of convertible<br>preferred stock - offering<br>costs  |  | 3             |                     |               |   | (3)   | (3)                                       |
| Issuance of common stock<br>upon exercise of options<br>subject to repurchase   |  |               | 127,536             |               |   |   |   |
| Extinguishment of Series A<br>convertible preferred stock<br>(Refer to Note 8)  |  | (12,100)      |                     |               |   | 12,100  | 12,100                                    |
| Issuance of Series B<br>convertible preferred stock<br>in February 2011 at \$0.45,<br>net of issuance costs of<br>\$210 and convertible                             | 21,805,693                             | 8,215         |                     |               |   |   |   |

|   |            |       |       |     |          |          |
|---|------------|-------|-------|-----|----------|----------|
| preferred stock call option liability of \$1,388  |            |       |       |     |          |          |
| Conversion of notes payable and accrued interest into Series B convertible preferred stock at \$0.45 per share in February 2011 | 10,238,444 | 4,607 |       |     |          |          |
| Issuance of common stock upon exercise of options at \$1.26 per share   |            |       | 2,261 | 3   |          | 3        |
| Vesting of options subject to repurchase  |            |       |       | 11  |          | 11       |
| Stock-based compensation  |            |       |       | 192 |          | 192      |
| Net loss  |            |       |       |     | (23,130) | (23,130) |

**Balances at December 31, 2011**

54,044,137      22,722      129,797      206      (22,032)      (21,826)

The accompanying notes are an integral part of these financial statements.

Table of Contents**VERSARTIS, INC.****(A development stage company)****STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT  
(CONTINUED)***(in thousands, except share and per share data)*

|  | <b>Convertible<br/>Preferred Stock</b> |               | <b>Common Stock</b> |               | <b>Additional<br/>Paid-In<br/>Capital</b> | <b>Deficit<br/>Accumulated<br/>During<br/>the<br/>Development<br/>Stage</b> | <b>Total<br/>Stockholders'<br/>Deficit</b> |
|--|--|---------------|---------------------|---------------|---|---|--|
|  | <b>Shares</b>                          | <b>Amount</b> | <b>Shares</b>       | <b>Amount</b> |   |   |  |
| <b>Balances at December 31, 2011</b>   | 54,044,137                             | 22,722        | 129,797             |               | 206                                       | (22,032)  | (21,826)                                   |
| Issuance of Series B convertible preferred stock in January 2012 at \$0.45, net of issuance costs of \$23 and convertible preferred stock call option liability of \$129 | 6,430,555                              | 2,999         |                     |               |   |   |  |
| Issuance of Series B convertible preferred stock in May 2012 at \$0.45, net of convertible preferred stock call option liability of \$132                                | 6,430,555                              | 3,026         |                     |               |   |   |  |
| Issuance of Series B convertible preferred stock upon exercise of Series B convertible preferred stock warrants in January and May 2012                                  | 2,000,000                              | 900           |                     |               | 152                                       |   | 152  |
| Issuance of common stock upon exercise of options at \$1.26 per share  |  |               | 3,910               |               | 5   |   | 5  |
| Vesting of options subject to repurchase   |  |               |                     |               | 3   |   | 3  |
| Stock-based compensation   |  |               |                     |               | 141                                       |   | 141  |
| Net loss   |  |               |                     |               |   | (13,217)  | (13,217)                                   |
| <b>Balances at December 31, 2012</b>   | 68,905,247                             | 29,647        | 133,707             |               | 507                                       | (35,249)  | (34,742)                                   |

|   |              |           |           |          |             |             |
|---|--------------|-----------|-----------|----------|-------------|-------------|
| Issuance of Series B convertible preferred stock on conversion of notes in January 2013   | 10,195,552   | 4,588     |           |          |             |             |
| Issuance of Series C convertible preferred stock in January and July 2013 at \$0.56, net of issuance costs of \$335 and convertible preferred stock call option liability of \$864    | 36,444,444   | 19,301    |           |          |             |             |
| Issuance of Series D-1 convertible preferred stock at \$0.56 per share in October 2013, net of issuance costs of \$209 and convertible preferred stock call option liability of \$126 | 17,777,777   | 9,665     |           |          |             |             |
| Conversion of Series B convertible preferred stock into common stock  | (12,674,846) | (5,704)   | 1,102,160 | 5,704    |             | 5,704       |
| Issuance of common stock upon exercise of options at \$1.26 per share   |              |           | 21,444    | 27       |             | 27          |
| Vesting of options subject to repurchase  |              |           |           | 1        |             | 1           |
| Stock-based compensation  |              |           |           | 215      |             | 215         |
| Net loss  |              |           |           |          | (18,497)    | (18,497)    |
| <b>Balances at December 31, 2013</b>  | 120,648,174  | \$ 57,497 | 1,257,311 | \$ 6,454 | \$ (53,746) | \$ (47,292) |

The accompanying notes are an integral part of these financial statements.

Table of Contents**VERSARTIS, INC.****(A development stage company)****STATEMENTS OF CASH FLOWS***(in thousands)*

|  | <b>Year Ended<br/>December 31,</b> |             | <b>Cumulative<br/>Period From<br/>December 10,<br/>2008 (Date<br/>of<br/>Inception) to<br/>December 31,<br/>2013</b> |
|--|------------------------------------|-------------|--|
|  | <b>2012</b>                        | <b>2013</b> |  |
| <b>Cash flows from operating activities</b>                                |                                    |             |  |
| Net loss   | \$ (13,217)                        | \$ (18,497) | \$ (54,844)  |
| Adjustments to reconcile net loss to net cash used in operating activities |                                    |             |  |
| Depreciation and amortization  | 21                                 | 17          | 93   |
| Loss on sale of assets   |                                    |             | 9  |
| Reserve for uncollectible receivables                                      |                                    |             | 54   |
| Stock-based compensation expense   | 141                                | 215         | 548  |
| Amortization of debt discount  | 312                                | 121         | 666  |
| Non-cash interest expense  | 81                                 | 7           | 195  |
| Non-cash research and development expense                                  |                                    |             | 1  |
| Remeasurement of convertible preferred stock call option liability         | (89)                               | (969)       | (2,096)  |
| Remeasurement of convertible preferred stock warrant liability             |                                    | 41          | (40)   |
| <b>Changes in assets and liabilities</b>                                   |                                    |             |  |
| Accounts receivable  | 491                                | 84          |  |
| Prepaid expenses and other assets  | (128)                              | 299         | (1,319)  |
| Accounts payable   | 413                                | (675)       | 315  |
| Accrued liabilities and other liabilities                                  | 259                                | 2,267       | 3,667  |
| Net cash used in operating activities                                      | (11,716)                           | (17,090)    | (52,751)   |
| <b>Cash flows from investing activities</b>                                |                                    |             |  |
| Proceeds from sale of property and equipment                               |                                    |             | 10   |
| Purchase of property and equipment   |                                    | (9)         | (185)  |
| Security deposit for facility lease  |                                    |             | (55)   |
| Change in restricted cash  |                                    |             | (75)   |
| Net cash used in investing activities                                      |                                    | (9)         | (305)  |
| <b>Cash flows from financing activities</b>                                |                                    |             |  |
|  |                                    |             | 1,000  |

Proceeds from sale of option for Series A preferred stock purchase rights

|  |        |           |           |
|--|--------|-----------|-----------|
| Proceeds from issuance of convertible preferred stock, net of issuance costs | 5,765  | 29,956    | 55,320    |
| Proceeds from exercise of convertible preferred stock warrants               | 900    |           | 900       |
| Proceeds from exercise of common stock options                               | 5      | 27        | 49        |
| Proceeds from issuance of convertible notes payable                          | 4,500  |           | 9,000     |
| Net cash provided by financing activities                                    | 11,170 | 29,983    | 66,269    |
| Net increase (decrease) in cash and cash equivalents                         | (546)  | 12,884    | 13,213    |
| Cash and cash equivalents at beginning of period                             | 875    | 329       |           |
| Cash and cash equivalents at end of period                                   | \$ 329 | \$ 13,213 | \$ 13,213 |

#### Supplemental disclosure

|                        |    |    |      |
|------------------------|----|----|------|
| Cash paid for interest | \$ | \$ | \$ 2 |
|------------------------|----|----|------|

#### Supplemental disclosure of noncash items

|   |        |          |           |
|---|--------|----------|-----------|
| Conversion of notes payable and accrued interest to preferred stock           | \$     | \$ 4,588 | \$ 9,195  |
| Issuance of warrants for preferred stock in connection with convertible notes | \$ 433 | \$       | \$ 666    |
| Accretion of Series A convertible preferred stock to redemption value         | \$     | \$       | \$ 11,002 |
| Issuance of call options related to convertible preferred stock               | \$     | \$ 1,116 | \$ 3,504  |
| Extinguishment of Series A convertible preferred stock                        | \$     | \$       | \$ 12,100 |
| Deferred initial public offering issuance costs                               | \$     | \$ 396   | \$ 396    |

The accompanying notes are an integral part of these financial statements.

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS**

**1. Formation and Business of the Company**

Versartis, Inc., (the Company) a development stage company, was incorporated on December 10, 2008 in the State of Delaware. The Company is a biopharmaceutical company focused on developing therapeutic proteins for the treatment of metabolic diseases and endocrine disorders. The Company is developing novel drug candidates that it has licensed from Amunix Inc ( Amunix ).

The Company's headquarters and operations are in Redwood City, California. Since incorporation, the Company has been primarily performing research and development activities, including early clinical trials, filing patent applications, obtaining regulatory approvals, hiring personnel, and raising capital to support and expand these activities. Accordingly, at December 31, 2013, the Company is considered to be in the development stage.

**2. Summary of Significant Accounting Policies**

***Basis of Presentation and Use of Estimates***

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ( U.S. GAAP ). The preparation of the accompanying financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Since inception, the Company has incurred net losses and negative cash flows from operations. At December 31, 2013, the Company had a deficit accumulated during the development stage of \$53.7 million and working capital of \$10.3 million. The Company expects to continue to incur losses from costs related to the continuation of research and development and administrative activities for the foreseeable future. Although management has been successful in raising capital in the past, most recently in February 2014, there can be no assurance that the Company will be successful or that any needed financing will be available in the future at terms acceptable to the Company.

***Segments***

The Company operates in one segment. Management uses one measurement of profitability and does not segregate its business for internal reporting. All long-lived assets are maintained in the United States of America.

***Unaudited Pro Forma Stockholders' Equity***

The December 31, 2013 unaudited pro forma stockholders' equity has been prepared assuming immediately upon completion of the Company's initial public offering: (i) the automatic conversion of all outstanding shares of preferred stock into shares of common stock; (ii) the automatic net exercise of the convertible preferred warrants to purchase convertible preferred stock and the related reclassification of the convertible preferred warrant liability to additional paid-in-capital. The unaudited pro forma stockholders' equity does not assume any proceeds from the proposed initial

public offering, nor does it assume the impact of the preferred stock financings, which occurred in February 2014 as more fully described in Note 16.

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

***Concentration of Credit Risk***

Financial instruments that potentially subject the Company to a concentration of credit risk consist of cash and cash equivalents. All of the Company's cash and cash equivalents are held at one financial institution that management believes is of high credit quality. Such deposits may, at times, exceed federally insured limits.

***Risk and Uncertainties***

The Company's future results of operations involve a number of risks and uncertainties. Factors that could affect the Company's future operating results and cause actual results to vary materially from expectations include, but are not limited to, uncertainty of results of clinical trials and reaching milestones, uncertainty of regulatory approval of the Company's potential drug candidates, uncertainty of market acceptance of the Company's products, competition from substitute products and larger companies, securing and protecting proprietary technology, strategic relationships and dependence on key individuals and sole source suppliers.

Products developed by the Company require clearances from the U.S. Food and Drug Administration (FDA) or other international regulatory agencies prior to commercial sales. There can be no assurance that the products will receive the necessary clearances. If the Company was denied clearance, clearance was delayed or the Company was unable to maintain clearance, it could have a materially adverse impact on the Company.

The Company expects to incur substantial operating losses for the next several years and will need to obtain additional financing in order to complete clinical studies and launch and commercialize any product candidates for which it receives regulatory approval. There can be no assurance that such financing will be available or will be at terms acceptable by the Company.

***Cash and Cash Equivalents***

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. At December 31, 2012 and 2013, the Company's cash and cash equivalents were held in an institution in the U.S. and include deposits in a money market fund which was unrestricted as to withdrawal or use.

***Restricted Cash***

Restricted cash at December 31, 2012 and 2013 comprise cash balances held by a bank as security for the Company's credit cards.

***Property and Equipment, Net***

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets, generally between three and five years. Leasehold improvements are amortized on a straight-line

basis over the lesser of their useful life or the term of the lease. Maintenance and repairs are charged to expense as incurred, and improvements are capitalized. When assets are retired or otherwise disposed of, the cost and accumulated depreciation are removed from the balance sheet and any resulting gain or loss is reflected in operations in the period realized.

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

***Impairment of Long-Lived Assets***

The Company reviews property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability is measured by the comparison of the carrying amount to the future net cash flows which the assets are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value (i.e. determined through estimating projected discounted future net cash flows or other acceptable methods of determining fair value) arising from the asset. There have been no such impairments of long-lived assets as of December 31, 2012 and 2013 and the cumulative period from December 10, 2008 (date of inception) to December 31, 2013.

***Fair Value of Financial Instruments***

The carrying value of the Company's cash and cash equivalents, other receivable, prepaid expenses and other current assets, accounts payable, accrued liabilities, and convertible notes payable approximate fair value due to the short-term nature of these items. Convertible preferred stock call option liability and convertible preferred stock warrant liability are carried at fair value. Based on the borrowing rates currently available to the Company for debt with similar terms and consideration of default and credit risk, the carrying value of the convertible notes payable approximates their fair value.

Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs.

The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

- Level I      Unadjusted quoted prices in active markets for identical assets or liabilities;
- Level II     Inputs other than quoted prices included within Level I that are observable, unadjusted 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 related assets or liabilities; and
- Level III    Unobservable inputs that are supported by little or no market activity for the related assets or liabilities. The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The Company's financial instruments consist of Level I assets and Level III liabilities. Level I securities is comprised of a highly liquid money market fund. Level III liabilities that are measured at fair value on a recurring basis consist

of convertible preferred stock warrant liability and convertible preferred stock call option liability. The fair values of these instruments are measured using an option pricing model. Inputs used to determine estimated fair market value include the estimated fair value of the underlying stock at the valuation measurement date, the remaining expected term of the instrument, risk-free interest rates, expected dividends and the expected volatility.

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

***Preclinical and Clinical Trial Accruals***

The Company's clinical trial accruals are based on estimates of patient enrollment and related costs at clinical investigator sites as well as estimates for the services received and efforts expended pursuant to contracts with multiple research institutions and clinical research organizations (CROs) that conduct and manage clinical trials on the Company's behalf.

The Company estimates preclinical and clinical trial expenses based on the services performed, pursuant to contracts with research institutions and clinical research organizations that conduct and manage preclinical studies and clinical trials on its behalf. In accruing service fees, the Company estimates the time period over which services will be performed and the level of patient enrollment and activity expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, the Company will adjust the accrual accordingly. Payments made to third parties under these arrangements in advance of the receipt of the related services are recorded as prepaid expenses until the services are rendered.

***Convertible Preferred Stock Warrants***

The Company accounts for its convertible preferred stock warrants as liabilities based upon the characteristics and provisions of each instrument. Convertible preferred stock warrants classified as derivative liabilities are recorded on the Company's balance sheet at their fair value on the date of issuance and are revalued on each subsequent balance sheet, with fair value changes recognized as increases or reductions to other income (expense), net in the statements of operations. The Company estimates the fair value of these liabilities using an option pricing model and assumptions that are based on the individual characteristics of the warrants on the valuation date, as well as assumptions for expected volatility, expected life, dividends, and risk-free interest rate. The Company will continue to adjust the liability for changes in fair value of these warrants until the earlier of: (i) exercise of warrants; (ii) expiration of warrants; (iii) a change of control of the Company; or (iv) the consummation of the Company's initial public offering.

***Convertible Preferred Stock Call Option***

The Company has determined that the Company's obligation to issue, and the investors' obligation to purchase, additional shares of the Company's convertible preferred stock represents a freestanding financial instrument. The freestanding convertible preferred stock call option liability is initially recorded at fair value, with fair value changes recognized as increases or reductions to other income (expense), net in the statements of operations. At the time of the exercise of the call option, any remaining value of the option is recorded as a capital transaction.

***Convertible Preferred Stock***

The Company has classified the convertible preferred stock as temporary equity in the balance sheets due to certain change in control events that are outside the Company's control, including liquidation, sale or transfer of the Company, as holders of the convertible preferred stock can cause redemption of the shares.

***Research and Development***

Research and development costs are charged to operations as incurred. Research and development costs include, but are not limited to, payroll and personnel expenses, laboratory supplies, consulting costs, external research and development expenses and allocated overhead, including rent, equipment depreciation, and utilities.

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

Costs to acquire technologies to be used in research and development that have not reached technological feasibility and have no alternative future use are expensed to research and development costs when incurred.

***Income Taxes***

The Company accounts for income taxes under the asset and liability approach. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The Company assesses all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position's sustainability and is measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and the Company will determine whether (i) the factors underlying the sustainability assertion have changed and (ii) the amount of the recognized tax benefit is still appropriate. The recognition and measurement of tax benefits requires significant judgment. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

***Stock-Based Compensation***

For stock options granted to employees, the Company recognizes compensation expense for all stock-based awards based on the grant-date estimated fair value. The value of the portion of the award that is ultimately expected to vest is recognized as expense ratably over the requisite service period. The fair value of stock options is determined using the Black-Scholes option pricing model. The determination of fair value for stock-based awards on the date of grant using an option pricing model requires management to make certain assumptions regarding a number of complex and subjective variables.

Stock-based compensation expense related to stock options granted to nonemployees is recognized based on the fair value of the stock options, determined using the Black-Scholes option pricing model, as they are earned. The awards generally vest over the time period the Company expects to receive services from the nonemployee.

***Comprehensive Loss***

Comprehensive loss is defined as a change in equity of a business enterprise during a period, resulting from transactions from non-owner sources. There have been no items qualifying as other comprehensive loss and, therefore, for all periods presented, the Company's comprehensive loss was the same as its reported net loss.

***Net Loss per Share of Common Stock***

Basic net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding during the period, without consideration for potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common shares and potentially dilutive securities

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

outstanding for the period. For purposes of the diluted net loss per share calculation, convertible preferred stock, convertible notes payable, stock options and convertible preferred stock warrants are considered to be potentially dilutive securities. Because the Company has reported a net loss for the years ended December 31, 2012 and 2013, diluted net loss per common share is the same as basic net loss per common share for those periods.

***Unaudited Pro Forma Net Loss per Share of Common Stock***

The unaudited pro forma basic and diluted net loss per share reflects the conversion of all outstanding shares as of December 31, 2013 of convertible preferred stock and convertible preferred stock warrants and common stock options, as if the conversion had occurred at the beginning of the period presented or the date of original issuance, if later.

The unaudited pro forma basic and diluted net loss per share amounts do not give effect to the issuance of shares from the planned initial public offering nor do they give effect to potential dilutive securities where the impact would be anti-dilutive.

***Recent Accounting Pronouncements***

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board, or FASB, or other standard setting bodies and adopted by us as of the specified effective date. Unless otherwise discussed, the impact of recently issued standards that are not yet effective will not have a material impact on the Company's financial position or results of operations upon adoption.

In February 2013, the FASB issued guidance which addresses the presentation of amounts reclassified from accumulated other comprehensive income. This guidance does not change current financial reporting requirements, instead an entity is required to cross-reference to other required disclosures that provide additional detail about amounts reclassified out of accumulated other comprehensive income. In addition, the guidance requires an entity to present significant amounts reclassified out of accumulated other comprehensive income by line item of net income if the amount reclassified is required to be reclassified to net income in its entirety in the same reporting period. Adoption of this standard is required for periods beginning after December 15, 2012 for public companies. This new guidance impacts how the Company reports comprehensive income only, and had no effect on the Company's results of operations, financial position or liquidity upon its required adoption on January 1, 2013.

**3. Balance Sheet Components**

***Prepaid expenses and other current assets (in thousands)***

**December 31,**

|                          | <b>2012</b>     | <b>2013</b>   |
|--------------------------|-----------------|---------------|
| Preclinical and clinical | \$ 1,285        | \$ 847        |
| Other                    | 333             | 131           |
| <b>Total</b>             | <b>\$ 1,618</b> | <b>\$ 978</b> |

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Table of Contents**VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)***Accrued Liabilities (in thousands)*

|                          | <b>December 31,</b> |                 |
|--------------------------|---------------------|-----------------|
|                          | <b>2012</b>         | <b>2013</b>     |
| Payroll and related      | \$ 427              | \$ 539          |
| Preclinical and clinical | 956                 | 1,726           |
| Professional services    |                     | 1,265           |
| Other                    | 17                  | 138             |
| <b>Total</b>             | <b>\$ 1,400</b>     | <b>\$ 3,668</b> |

**4. Fair Value Measurements**

The following table sets forth the Company's financial instruments that were measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands):

| <b>Fair Value Measurements at December 31,</b>    |               |                |                |                |
|---|---------------|----------------|----------------|----------------|
| <b>2013</b>                                       |               |                |                |                |
|   | <b>Total</b>  | <b>Level 1</b> | <b>Level 2</b> | <b>Level 3</b> |
| <b>Assets</b>                                     |               |                |                |                |
| Money market fund                                 | \$ 12,761     | \$ 12,761      | \$             | \$             |
| <b>Liabilities</b>                                |               |                |                |                |
| Convertible preferred stock warrant liability     | \$ 474        |                |                | \$ 474         |
| Convertible preferred stock call option liability | 21            |                |                | 21             |
| <b>Total liabilities</b>                          | <b>\$ 495</b> | <b>\$</b>      | <b>\$</b>      | <b>\$ 495</b>  |

| <b>Fair Value Measurements at December 31,</b> |              |                |                |                |
|--|--------------|----------------|----------------|----------------|
| <b>2012</b>                                    |              |                |                |                |
|  | <b>Total</b> | <b>Level 1</b> | <b>Level 2</b> | <b>Level 3</b> |
| <b>Assets</b>                                  |              |                |                |                |
| Money market fund                              | \$ 110       | \$ 110         | \$             | \$             |

**Liabilities**

|   |    |     |    |  |    |  |    |     |
|---|----|-----|----|--|----|--|----|-----|
| Convertible preferred stock warrant liability | \$ | 433 | \$ |  | \$ |  | \$ | 433 |
|---|----|-----|----|--|----|--|----|-----|

The fair value measurement of the convertible preferred stock warrant liability and convertible preferred stock call option liability is based on significant inputs not observed in the market and thus represents a Level 3 measurement. Level 3 instruments are valued based on unobservable inputs that are supported by little or no market activity and reflect the Company's assumptions in measuring fair value. The Company's estimated fair value of the convertible preferred stock warrant liability is calculated using an option pricing model and key assumptions including the probabilities of settlement scenarios, enterprise value, time to liquidity, risk-free interest rates, discount for lack of marketability and volatility. The Company's estimated fair value of the preferred stock call option liability is calculated using an option pricing model and key assumptions including the estimated fair value of the Company's preferred stock, risk-free interest rates and volatility and the probability of the closing of the future financing tranche. The estimates are based, in part, on subjective assumptions and could differ materially in the future.

Table of Contents**VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

During the periods presented, the Company has not changed the manner in which it values liabilities that are measured at fair value using Level 3 inputs. The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers within the hierarchy during the years ended December 31, 2012 or 2013.

The following table sets forth a summary of the changes in the fair value of the Company's Level 3 financial instruments as follows:

|   | <b>Convertible<br/>preferred stock<br/>call option<br/>liability</b> | <b>Convertible<br/>preferred stock<br/>warrant<br/>liability</b> |
|---|--|--|
| <b>Balance at January 1, 2012</b>   | \$ 349   | \$ 152   |
| Issuance of financial instruments   |  | 433  |
| Fair value of call option liability recognized upon issuance of preferred stock | (260)  |  |
| Exercise of financial instruments   |  | (152)  |
| Change in fair value recorded in other income (expense), net                    | (89)   |  |
| <b>Balance at December 31, 2012</b>   |  | 433  |
| Issuance of financial instruments   | 1,116  |  |
| Fair value of call option liability recognized upon issuance of preferred stock | (126)  |  |
| Change in fair value recorded in other income (expense), net                    | (969)  | 41   |
| <b>Balance at December 31, 2013</b>   | \$ 21  | \$ 474   |

**5. Convertible Notes Payable**

In 2010, the Company entered into convertible notes payable agreements ( 2010 Notes ) with investors, in two tranches, for a total of \$4.5 million. The terms of each of the 2010 Notes bear a fixed interest rate of 5%. In November 2010, the Company extended the maturity date of the 2010 Notes by two months to February 2011. The Company analyzed the amendment under the modification accounting guidance and concluded that the amendment did not result in a substantial modification. In February 2011, the outstanding 2010 Notes and accrued interest of \$4.6 million were converted into 10,238,444 shares of Series B convertible preferred stock.

In October 2012, the Company entered into convertible notes payable agreements ( 2012 Notes ) with investors for a total of \$4.5 million. The 2012 Notes bear a fixed interest rate of 8% accruing from the date of the issuance of 2012

Notes, with principal and unpaid interest payable on January 31, 2013. The 2012 Notes are convertible into shares of the next preferred stock financing at the purchase price of those shares, or into shares of Series B convertible preferred stock at \$0.45 per share, at the option of the holder, or may be paid in cash in the event of a default.

In January 2013, the holders of 2012 Notes converted principal of \$4.5 million and \$88,000 of accrued interest, into 10,195,552 shares of Series B preferred convertible stock at a price of \$0.45 per share.

## **6. Convertible Preferred Stock Warrants**

In connection with the 2010 Notes, the Company issued convertible preferred stock warrants equal to 20% of the shares issuable upon conversion of the 2010 Notes. Using an option pricing model with a volatility of 85%, term of 1.75 years and a risk-free interest rate of 0.53%, the fair value of the warrants was determined to be

**Table of Contents****VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

approximately \$233,000 and was recorded as warrant liability and a debt discount against the 2010 Notes and amortized to interest expense over the term of the 2010 Notes. The convertible preferred stock warrants were exercised in 2012 for 2.0 million shares of Series B convertible preferred stock at an exercise price of \$900,000.

In connection with the 2012 Notes, the Company issued convertible preferred stock warrants equal to 20% of the shares issuable on conversion of the 2012 Notes. The convertible preferred stock warrants are exercisable into shares of the same class of convertible preferred stock issued upon conversion of the related 2012 Notes. The convertible preferred stock warrants have a five year term and expire on October 12, 2017. The estimated fair value of these warrants of \$433,000 at issuance was recorded as a debt discount on the 2012 Notes, and amortized to interest expense using the effective interest method through the original maturity date in 2013. The convertible preferred stock warrants were valued using an option pricing model with a risk free interest rate of 0.21%, volatility of 90%, and an expected life equal to 1.5 years. As of December 31, 2013, the fair value of the warrants was estimated to be \$474,000.

The 2012 warrants remain unexercised as of December 31, 2013. The warrants expire at the earlier of (i) the closing of an initial public offering, (ii) a sale of the company or (iii) October 12, 2017; provided that if a holder of the warrants does not notify us of the holder's intent to exercise or not to exercise the warrant prior to the expiration date, and the fair market value of the underlying shares on the expiration date is greater than the exercise price, then the holder will be deemed to have net exercised the warrant immediately prior to the expiration date.

The assumptions used to value the convertible preferred stock warrants were as follows:

|                          | <b>Year Ended<br/>December 31,</b> |             |
|--------------------------|------------------------------------|-------------|
|                          | <b>2012</b>                        | <b>2013</b> |
| Expected term (in years) | 1.5                                | 1.1         |
| Expected volatility      | 90.00%                             | 75.00%      |
| Risk-free interest rate  | 0.21%                              | 0.13%       |
| Dividend yield           | 0%                                 | 0%          |

**7. Commitments and Contingencies*****Facility Leases***

In September 2009, the Company signed an operating facility sublease with Amunix, a related party (refer to Note 11) for its corporate offices that included approximately 2,850 square feet of office space in Mountain View, California. The sublease term was for two years, commencing on December 1, 2009. The sublease expired in November 2011.

In August 2011, the Company signed an operating facility lease for its corporate office that includes approximately 5,740 square feet of office space in Redwood City, California. The lease term is for thirty months, commencing on October 16, 2011. The Company paid a security deposit of \$55,000 for this facility lease in 2011, which is recorded in other assets.

At December 31, 2013, the Company's future minimum commitments under non-cancelable operating leases are \$77,000 for year ended December 31, 2014.

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**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

Rent expense was \$218,000 and \$241,000 for the years ended December 31, 2012 and 2013, respectively, and \$600,000 for the period from December 10, 2008 (inception) to December 31, 2013.

***Purchase Commitments***

The Company conducts research and development programs through a combination of internal and collaborative programs that include, among others, arrangements with contract manufacturing organizations and contract research organizations. The Company had contractual arrangements with these organizations including license agreements with milestone obligations and service agreements with obligations largely based on services performed.

In the normal course of business, the Company enters into various firm purchase commitments related to certain preclinical and clinical studies. At December 31, 2013 the noncancellable portion of these commitments, in aggregate, totaled approximately \$5.4 million.

***Contingencies***

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and provide for general indemnifications. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future, but have not yet been made. The Company accrues a liability for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated.

As of December 31, 2013 the Company is contingently committed to make development and sales-related milestone payments of up to \$30.0 million under certain circumstances, and other payments of \$10 million, as well as royalties relating to potential future product sales under the License Agreement with Amunix. The amount, timing and likelihood of these payments are unknown as they are dependent on the occurrence of future events that may or may not occur, including approval by the FDA of potential drug candidates.

***Indemnification***

In accordance with the Company's amended and restated Certificate of Incorporation and amended and restated bylaws, the Company has indemnification obligations to its officers and directors for certain events or occurrences, subject to certain limits, while they are serving at the Company's request in such capacity. There have been no claims to date and the Company has a director and officer insurance policy that may enable it to recover a portion of any amounts paid for future claims.

***Litigation***

The Company may from time to time be involved in legal proceedings arising from the normal course of business. There are no pending or threatened legal proceedings as of December 31, 2013.

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Table of Contents**VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)****8. Convertible Preferred Stock**

Convertible preferred stock ( preferred stock ) as of December 31, 2012 and December 31, 2013 consisted of the following (in thousands, except share and per share data):

*At December 31, 2012 -*

| Series   | Shares     |             | Per Share<br>Liquidation<br>Preference | Carrying<br>Value |
|----------|------------|-------------|--|-------------------|
|          | Authorized | Outstanding |  |                   |
| Series A | 22,000,000 | 22,000,000  | \$ 0.45                                | \$ 9,900          |
| Series B | 46,905,248 | 46,905,247  | 0.45                                   | 19,747            |
|          | 68,905,248 | 68,905,247  |  | \$ 29,647         |

*At December 31, 2013 -*

| Series     | Shares      |             | Per Share<br>Liquidation<br>Preference | Carrying<br>Value |
|------------|-------------|-------------|--|-------------------|
|            | Authorized  | Outstanding |  |                   |
| Series A   | 22,000,000  | 22,000,000  | \$ 0.45                                | \$ 9,900          |
| Series B   | 46,425,950  | 44,425,953  | 0.45                                   | 18,631            |
| Series C   | 36,444,444  | 36,444,444  | 0.56                                   | 19,301            |
| Series D-1 | 17,777,777  | 17,777,777  | 0.56                                   | 9,665             |
| Series D-2 | 13,168,291  |             | 0.76                                   |                   |
|            | 135,816,462 | 120,648,174 |  | \$ 57,497         |

***Issuance of Series A preferred stock***

In December 2008, the Company entered into a stock purchase agreement with Amunix and other investors to issue 22,000,000 shares of Series A preferred stock at a purchase price of \$1.00 per share in multiple closings.

In consideration of Amunix entering into the License Agreement (Refer to Note 11) with the Company, the Company issued 11,000,000 shares of Series A convertible preferred stock in December 2008 to Amunix pursuant to the terms of the Series A Purchase Agreement and granted to Amunix the pro-rata right to participate in a future Series A

closing if, at the sole discretion of certain investors, it is determined the Company has satisfied certain milestones, and the Board of Directors determines that the Company requires additional capital, for 2,500,000 shares at \$1.00 per share. The pro rata right to participate in future Series A closing was determined to be issued to an entity under common control and as such the value of the option was initially recorded at a carrying value of \$0. This right was waived by Amunix in 2010.

The Company issued an aggregate of 8,000,000 shares of Series A preferred stock in May and December 2009 at a purchase price of \$1.00 per share and further issued 3,000,000 shares in April 2010 as part of the third closing pursuant to the Series A convertible preferred stock purchase agreement.

***Issuance of Series B convertible preferred stock***

In February 2011, the Company entered into a Series B convertible preferred stock purchase agreement with certain investors. The Company issued 21,805,693 shares of Series B convertible preferred stock at a purchase

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**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

price of \$0.45 per share totaling \$9.8 million in gross proceeds. Further, the 2010 convertible notes converted into 10,238,444 shares of Series B preferred upon the conversion of principal of \$4.5 million and accrued interest of \$107,300.

In January and May 2012, the Company issued 12,861,110 shares of Series B convertible preferred stock at a purchase price of \$0.45 per share in two subsequent closings and raised approximately \$5.8 million in gross proceeds. The Company issued additional 2,000,000 shares of Series B convertible preferred stock upon the exercise of Series B convertible preferred stock warrants in exchange for \$900,000.

***Issuance of Series C convertible preferred stock***

In January 2013, the Company entered into a Series C convertible preferred stock purchase agreement with certain investors. The Company issued 14,222,222 shares of Series C convertible preferred stock at a purchase price of \$0.56 per share and raised approximately \$8.0 million in gross proceeds.

The Company issued additional 22,222,222 shares of Series C preferred stock in July 2013 at a price of \$0.56 per share and raised \$12.5 million in gross proceeds.

***Issuance of Series D convertible preferred stock***

In October 2013, the Company entered into a stock purchase agreement with investors to sell shares of Series D convertible preferred stock in two tranches. In accordance with the terms of the Series D purchase agreement, the Company authorized the sale and issuance of up to 30,946,068 shares of Series D stock. The Company issued 17,777,777 shares of Series D-1 at a purchase price of \$0.56 per share and raised approximately \$10.0 million in gross proceeds. In February 2014, the Company issued 13,168,291 shares of Series D-2 at a purchase price of \$0.76 per share and received approximately \$10.0 million in gross proceeds (Refer to Note 16).

***Convertible preferred stock call option liability***

The preferred stock purchase agreements for Series A, B, C and D provided the investors the right to participate in future rounds of the respective series funding at a fixed price equal to the original issue price. These rights were provided concurrently with the issuance of the original preferred stock agreement (Series A convertible preferred stock had a separate option agreement). These liability classified convertible preferred stock call options have been determined to be freestanding financial instruments because they are freely transferable and separately exercisable.

**Series A convertible preferred stock call option liability**

On December 10, 2008, the Company sold a convertible preferred stock call option right to investors to participate in four future rounds of Series A convertible preferred financing. The Company recorded an initial call option liability in December 2008 and remeasured the convertible preferred stock liability immediately prior to exercise as well as at

each balance sheet date. The convertible preferred stock call option right was exercised in three rounds of financing and was waived at the fourth round financing. The impact of the remeasurement of the option was negligible on a cumulative basis from December 10, 2008 to December 31, 2010.

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**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

**Series B convertible preferred stock call option liability**

The Company has recorded an initial convertible preferred stock call option liability in February 2011 upon the initial closing of the financing. Using an option pricing model with a volatility of 71%, expected term of 1 year and a risk-free interest rate of 0.28%, the fair value of the call option was determined to be approximately \$1.4 million and was recorded as convertible preferred stock call option liability and netted against the issuance of Series B convertible preferred stock.

The Company remeasured the convertible preferred stock call option liability at \$349,000 at December 31, 2011 and recorded the change in fair value of \$1.0 million in other income (expense), net. In 2012, the Company remeasured the convertible preferred stock call option liability immediately before exercise and recorded \$88,000 in other income (expense), net and reclassified the fair value of \$260,000 into preferred stock upon issuance of subsequent tranches of Series B convertible preferred stock.

**Series C convertible preferred stock call option liability**

The Company has recorded an initial convertible preferred stock call option liability in January 2013 upon the initial close of the financing. Using the option pricing model with a volatility of 56%, expected term of 0.5 years and a risk-free interest rate of 0.11%, the fair value of the convertible preferred stock call option was determined to be approximately \$990,000 and was recorded as a call option liability and netted against the issuance of Series C convertible preferred stock.

The investors exercised their right to participate in subsequent tranches in 2013 and accordingly the Company remeasured the convertible preferred stock call option liability just before exercise and recorded \$864,000 in other income (expense), net and reclassified the fair value of \$126,000 into preferred stock upon issuance of subsequent tranches of Series C preferred stock.

**Series D convertible preferred stock call option liability**

The Company has recorded an initial convertible preferred stock call option liability in October 2013 upon the initial close of the financing. Using the option pricing model with a volatility of 60%, expected term of 0.3 years and a risk-free interest rate of 0.2%, the fair value of the convertible preferred stock call option was determined to be approximately \$126,000 and was recorded as a call option liability and netted against the issuance of Series D-1 convertible preferred stock. As of December 31, 2013, the fair value of the call option was determined to be \$21,000, and the change in the fair value of \$105,000 was recorded in other income (expense), net in the statement of operations.

**Modification to Series A rights and preferences**

In February 2011, the Company entered into an agreement with new investors to sell shares of Series B convertible preferred stock. In addition, the Company sold the rights to develop one of its two product candidates to Diartis in exchange for a \$1.0 million note receivable. In connection with the Series B convertible preferred stock financing, the liquidation preference of the Series A convertible preferred stock was reduced from \$1.00 per share to \$0.45 per share, and the conversion ratio of Series A convertible preferred stock was reduced from \$11.50 per share to \$5.17 per share, the redemption feature was eliminated and a down-round feature was added to the rights and preferences of Series A convertible preferred stockholders. The Company considers an amendment which adds, deletes or significantly changes a material contractual term or fundamentally changes

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**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

the nature of the preferred shares to be in the nature of an extinguishment. As there were significant changes in the liquidation preference and conversion rate, the removal of the Series A holder-controlled contingent redemption feature, and addition of down-round protection, the Company has considered these changes to be substantially different. At the time of the extinguishment, the Company removed the carrying value of the preferred stock of \$22.0 million, and recorded the deemed fair value of the Series A convertible preferred stock after the change in the rights and preferences of \$9.9 million, resulting in a net reduction of \$12.1 million in the Series A preferred stock carrying value and an increase to deficit accumulated during the development stage.

***Accretion of preferred stock***

The Company recorded the convertible preferred stock at fair value on the dates of issuance. The Company classifies the convertible preferred stock outside of stockholders' deficit because the shares contain liquidation features that are not solely within the Company's control.

The Series A shares were originally issued (before modification of rights and preferences upon issuance of Series B) with a contingent redemption feature, which allowed the holders to redeem their shares five years following the issuance date of the Series A preferred shares. As such, the Company has chosen to accrete Series A for change in redemption value with a change to accumulated deficit at the end of each reporting period. Accordingly, the Company has accreted \$11.0 million during the cumulative periods ended December 31, 2010.

During the years ended December 31, 2012 and 2013, the Company did not adjust the carrying values of the convertible preferred stock to the redemption values of such shares since a liquidation event was not probable. Subsequent adjustments to increase the carrying values to the ultimate redemption values will be made only when it becomes probable that such a liquidation event will occur.

The rights, preferences and privileges of the convertible preferred stock as of December 31, 2013 are as follows:

**Dividends**

The holders of the Company's convertible preferred stock are entitled to receive noncumulative dividends of \$0.036 per share (as adjusted for stock splits, combinations, and reorganizations) per annum on each outstanding share of Series A and B preferred stock, and \$0.045 per share for each outstanding share of Series C and D-1 preferred stock. Such dividends shall be payable only when and if declared by the Board of Directors. No dividends have been declared to date.

**Conversion**

Preferred stock is convertible, at the option of the holder, at any time, into fully paid, non-assessable shares of common stock at an initial conversion ratio of 11.5-to-one.

The convertible preferred stock will automatically convert into common stock, at the then applicable conversion rate, in the event of either (i) the consent of a majority of certain holders of the then outstanding preferred stock, voting together as a class, or, if earlier, (ii) immediately before the closing of an underwritten initial public offering of the Company's common stock pursuant to a registration statement on Form S-1 under the Securities Act of 1933, as amended, with aggregate proceeds of at least \$50.0 million at a public offering price of at least \$17.48 per share (adjusted for intervening common stock splits, stock dividends, combination, subdivision, recapitalizations or the like).

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**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

**Voting Rights**

The holders of convertible preferred stock will be entitled to that number of votes on all matters presented to stockholders equal to the number of shares of common stock then issuable upon conversion of such preferred stock.

**Liquidation**

In the event of any sale of substantially all of the assets, a merger, or liquidation, dissolution or winding up of the Company, the holders of Series A, B, C and D-1 convertible preferred stock will be entitled to receive in preference to the holders of common stock, \$0.45, \$0.45, \$0.56 and \$0.56 respectively, per share (as adjusted for stock splits, combinations, and reorganizations) plus declared and unpaid dividends, if any. Thereafter, the remaining assets of the Company will be distributed ratably to the holders of preferred stock and common stock on a pro rata basis.

**Deemed Liquidation**

A merger, acquisition, sale or lease of all or substantially all of the assets of the Company which will result in the Company's stockholders immediately prior to such transaction not holding at least 50% of the voting power of the surviving, continuing or purchasing entity, shall be deemed to be a liquidation, dissolution or winding up. Upon this event, holders of convertible preferred stock shall receive their liquidation preference including any accrued and unpaid dividends as of the liquidation date.

**Protective Provisions**

Without first obtaining the approval of the Company's board of directors, which approval must include the approval of a majority of the directors designated by certain holders of preferred stock, the Company will not (i) make specified investment, compensation or operating decisions; (ii) take certain actions involving the Company's intellectual property and related agreements; (iii) consummate or consent to a liquidation event; (iv) increase or decrease the total number of authorized shares of any series or sub-series of preferred stock or of common stock or take certain other actions that may adversely affect the rights, preferences and privileges of the Company's outstanding capital stock; (v) amend, waive, alter or repeal any provision of the Company's certificate of incorporation or the company's bylaws; (vi) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare a dividend or make any distribution on the capital stock of the Company, except in certain circumstances; (vii) purchase or acquire any other business or entity or create any subsidiary; (viii) incur specified types of indebtedness, (ix) adopt or amend any stock option scheme or any other equity incentive plan; (x) enter into certain transactions concerning the Company's assets and intellectual property; (xi) enter into any transaction with any officer, director or other affiliate of the Company without required approvals; or (xii) change the authorized number of directors constituting the board of directors.

Without first obtaining the written consent or affirmative vote of the holders of at least 66 2/3% of the then outstanding shares of Series D preferred stock, consenting or voting separately as a class, the Company will not: (i) amend, alter, or repeal any provision of the Company's certificate of incorporation or bylaws in a manner that

adversely affects the rights, preference or privileges of the Series D preferred stock; (ii) take certain other actions that may adversely affect the rights, preferences and privileges of the Series D preferred stock; (iii) declare or pay any dividend on any capital stock; (iv) consummate or consent to a liquidation event except in certain circumstances; or (v) increase or decrease the authorized number of shares of the Series D preferred stock.

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Without first obtaining the written consent or affirmative vote of certain stockholders specified in the certificate of incorporation, the Company will not: (i) consummate or consent to a liquidation event; (ii) amend, alter, or repeal any provision of the Company's certificate of incorporation or bylaws; (iii) create, or authorize the creation of, or issue or obligate itself to issue shares of, any additional class or series or sub-series of capital stock (or any security convertible into or exercisable for any such capital stock) that ranks senior to or pari passu with any series or sub-series of preferred stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Company, the payment of dividends and rights of redemption; (iv) increase or decrease the authorized number of shares of common stock or preferred stock; (v) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare a dividend or make any distribution on the capital stock of the company, except in certain circumstances; (vi) incur or guarantee specified types of indebtedness; (vii) increase or decrease the size of the board of directors; (viii) increase the number of shares reserved for issuance under the Company's equity incentive plans; (ix) alter or change the rights, preferences or privileges of any series or sub-series of preferred stock; (x) adopt or amend any stock option scheme or any other equity incentive plan; (xi) enter into certain transactions concerning the Company's intellectual property; (xii) enter into any transaction with any officer, director or other affiliate of the Company without required approval; or (xiii) make any loan or advance, or grant any credit, to any employee or director of the Company or any subsidiary, except advances for travel expenses and similar expenditures to be incurred on behalf of the Company in the ordinary course of business.

**9. Common Stock**

The Certificate of Incorporation, as amended, authorizes the Company to issue 15,652,174 shares of common stock. Common stockholders are entitled to dividends as and when declared by the Board of Directors, subject to the rights of holders of all classes of stock outstanding having priority rights as to dividends. There have been no dividends declared to date. The holder of each share of common stock is entitled to one vote.

The Company had reserved common stock for future issuances as follows:

|   | <b>December 31,</b> |                   |
|---|---------------------|-------------------|
|   | <b>2012</b>         | <b>2013</b>       |
| Conversion of convertible preferred stock   | 5,991,757           | 10,491,140        |
| Issuance of options under stock plan  | 168,571             | 9,533             |
| Issuance upon exercise of options under stock plan                                  | 462,471             | 1,403,655         |
| Issuance upon exercise of warrants to purchase Series B convertible preferred stock |                     | 173,912           |
| <b>Total</b>  | <b>6,622,799</b>    | <b>12,078,240</b> |

**10. Stock Option Plan**

In February 2009, the Company adopted the Versartis, Inc. 2009 Stock Plan, which was amended in June 2011 ( 2009 Plan ) for eligible employees, outside directors and consultants. The 2009 Plan provides for the granting of incentive stock options, non-statutory stock options, and stock purchase rights to acquire restricted stock. Terms of the stock option agreements, including vesting requirements, are determined by the Board of Directors, subject to the provisions in the 2009 Plan. Options granted by the Company generally vest over a period of four years and expire no later than ten years after the date of grant. Options may be exercised prior to vesting, subject to a right of repurchase by the Company. The Board of Directors determines the fair value of the underlying common stock at the time of the grant of each option. Upon the exercise of options, the Company issues new common stock from its authorized shares.

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Table of Contents**VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

Options under the 2009 Plan may be granted for periods of up to ten years. All options issued to date have had a ten year life. The exercise price of an ISO shall not be less than 100% of the estimated fair value of the shares on the date of grant, as determined by the Board of Directors. The exercise price of an ISO and NSO granted to a 10% shareholder shall not be less than 110% of the estimated fair value of the shares on the date of grant, respectively, as determined by the Board of Directors. The exercise price of a NSO shall not be less than the par value per share of common stock. To date, options granted generally vest over four years and vest at a rate of 25% upon the first anniversary of the issuance date and 1/36th per month thereafter.

As of December 31, 2013, a total of 9,533 shares of common stock are available for future grant under the 2009 Plan.

In March 2011, the Company reduced the exercise price of all outstanding stock options with an exercise price greater than \$1.26 per share to \$1.26 per share. This modification affected a total of 50,887 shares. This resulting incremental compensation expense was not material.

Activity under the Company's stock option plans is set forth below:

|                                    | <b>Shares<br/>Available<br/>for<br/>Grant</b> | <b>Number<br/>of<br/>Shares</b> | <b>Weighted<br/>Average<br/>Exercise<br/>Price</b> | <b>Weighted<br/>Average<br/>Remaining<br/>Contractual<br/>Life<br/>(in years)</b> | <b>Aggregate<br/>Intrinsic<br/>Value<br/>(in thousands)</b> |
|------------------------------------|---|---------------------------------|--|---|---|
| <b>Balances, January 1, 2012</b>   | 55,936  | 328,921                         | 1.26   |   |   |
| Additional shares authorized       | 250,095                                       |                                 |  |   |   |
| Options granted                    | (175,652)                                     | 175,652                         | 1.40   |   |   |
| Options exercised                  |   | (3,910)                         | 1.26   |   |   |
| Options cancelled                  | 38,192  | (38,192)                        | 1.29   |   |   |
| <b>Balances, December 31, 2012</b> | 168,571                                       | 462,471                         | 1.31   |   |   |
| Additional shares authorized       | 803,590                                       |                                 |  |   |   |
| Options granted                    | (974,459)                                     | 974,459                         | 2.16   |   |   |
| Options exercised                  |   | (21,444)                        | 1.27   |   |   |
| Options cancelled                  | 11,831  | (11,831)                        | 1.30   |   |   |
| <b>Balances, December 31, 2013</b> | 9,533   | 1,403,655                       | \$ 1.90  | 9.1   | \$ 889  |

|  |           |         |     |        |
|--|-----------|---------|-----|--------|
| Vested and expected to vest as of<br>December 31, 2013 | 1,403,655 | \$ 1.90 | 9.1 | \$ 847 |
|--|-----------|---------|-----|--------|

|                                     |         |    |      |     |    |     |
|-------------------------------------|---------|----|------|-----|----|-----|
| Exercisable as of December 31, 2013 | 253,040 | \$ | 1.30 | 7.6 | \$ | 312 |
|-------------------------------------|---------|----|------|-----|----|-----|

The intrinsic values of outstanding, vested and exercisable options were determined by multiplying the number of shares by the difference in exercise price of the options and the fair value of the common stock.

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Table of Contents**VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

The following table summarizes information with respect to stock options outstanding and currently exercisable and vested as of December 31, 2013:

| Range of<br>Exercise Prices | Options Outstanding   |  | Options Exercisable<br>and Vested |  |
|-----------------------------|-----------------------|--|-----------------------------------|--|
|                             | Number<br>Outstanding | Weighted<br>Average<br>Remaining<br>Contractual<br>Life (in Years) | Number<br>Outstanding             | Weighted<br>Average<br>Remaining<br>Contractual<br>Life (in Years) |
| \$1.26                      | 274,308               | 7.3  | 193,811                           | 7.3  |
| 1.38                        | 134,922               | 8.3  | 53,406                            | 8.3  |
| 1.61                        | 419,152               | 9.3  | 5,823                             | 9.0  |
| 2.53-3.33                   | 575,273               | 10.0   |                                   |  |
|                             | 1,403,655             |  | 253,040                           |  |

***Stock Options Granted to Employees***

During the years ended December 31, 2012 and 2013, the Company granted stock options to employees to purchase shares of common stock with a weighted-average grant date fair value of \$1.04 and \$1.60 per share, respectively. The fair value is being expensed over the vesting period of the options, which is usually 4 years on a straight line basis as the services are being provided. No tax benefits were realized from options and other share-based payment arrangements during the periods.

As of December 31, 2013, total unrecognized employee stock-based compensation was \$1.5 million, which is expected to be recognized over the weighted-average remaining vesting period of 3.6 years.

The fair value of employee stock options was estimated using the following assumptions:

|                         | Year Ended December 31, |               |
|-------------------------|-------------------------|---------------|
|                         | 2012                    | 2013          |
| Expected volatility     | 90.3% - 91.4%           | 88.8% - 90.0% |
| Risk-free interest rate | 0.88% - 1.11%           | 0.88% - 2.10% |

|  |             |             |
|--|-------------|-------------|
| Dividend yield                                 | 0.0%        | 0.0%        |
| Expected life (in years)                       | 6.00 - 6.08 | 5.98 - 6.08 |
| <i>Determining Fair Value of Stock Options</i> |             |             |

The fair value of each grant of stock options was determined by the Company using the methods and assumptions discussed below. Each of these inputs is subjective and generally requires significant judgment to determine.

*Expected Volatility* The expected stock price volatility assumption was determined by examining the historical volatilities of a group of industry peers, as the Company did not have any trading history for the Company's common stock. The Company will continue to analyze the historical stock price volatility and expected term assumptions as more historical data for the Company's common stock becomes available.

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

*Expected Term* The expected term of stock options represents the weighted average period the stock options are expected to be outstanding. For option grants that are considered to be plain vanilla, the Company has opted to use the simplified method for estimating the expected term as provided by the Securities and Exchange Commission. The simplified method calculates the expected term as the average time-to-vesting and the contractual life of the options. For other option grants, the expected term is derived from the Company's historical data on employee exercises and post-vesting employment termination behavior taking into account the contractual life of the award.

*Risk-Free Interest Rate* The risk free rate assumption was based on the U.S. Treasury instruments with terms that were consistent with the expected term of the Company's stock options.

*Expected Dividend* The expected dividend assumption was based on the Company's history and expectation of dividend payouts.

*Forfeiture Rate* Forfeitures were estimated based on historical experience.

*Fair Value of Common Stock* The fair value of the shares of common stock underlying the stock options has historically been the responsibility of and determined by the Company's board of directors. Because there has been no public market for the Company's common stock, the board of directors determined fair value of common stock at the time of grant of the option by considering a number of objective and subjective factors including independent third-party valuations of the Company's common stock, sales of convertible preferred stock to unrelated third parties, operating and financial performance, the lack of liquidity of capital stock and general and industry specific economic outlook, amongst other factors. The fair value of the underlying common stock will be determined by the Company's board of directors until such time as the Company's common stock is listed on an established exchange or national market system.

***Stock Options Granted to Non Employees***

The stock-based compensation cost of options granted to nonemployees is re-measured over the vesting period as earned, and the resulting value is recognized as an expense over the period in which services are received. The weighted-average fair value of non-employee options granted during the period from December 10, 2008 (inception) to December 31, 2013 was \$1.56 per share. Options to purchase 2,023 and 34,758 shares were granted to non-employees during 2012 and 2013, respectively.

Stock-based compensation expense, net of estimated forfeitures, is reflected in the statements of operations and comprehensive loss as follows (in thousands):

|  | <b>Year Ended December 31,</b> | <b>Cumulative</b>  |
|--|--------------------------------|--------------------|
|  | <b>2012</b>                    | <b>Period From</b> |
|  | <b>2013</b>                    |                    |

**December 10, 2008**  
**(Date of**  
**Inception)**  
**to**  
**December 31,**  
**2013**

|                            |        |        |        |
|----------------------------|--------|--------|--------|
| <b>Operating expenses</b>  |        |        |        |
| Research and development   | \$ 91  | \$ 124 | \$ 369 |
| General and administrative | 50     | 91     | 179    |
| Total                      | \$ 141 | \$ 215 | \$ 548 |

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**VERSARTIS, INC.**

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**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

***Options Subject to Repurchase***

The Company has a right of repurchase with respect to early exercised options at an amount equal to the lower of (i) the exercise price of each restricted share being repurchased and (ii) the fair market value of such restricted share at the time the Company's right of repurchase is exercised. The Company's right to repurchase these shares lapses 25% after one year and 1/48 of the total number of shares originally granted per month for 36 months thereafter. At December 31, 2012 and 2013, 2,214 and zero shares remained subject to the Company's right of repurchase, respectively.

The shares purchased by employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be issued until those shares vest according to their respective vesting schedules. The cash received in exchange for unvested shares of early exercised stock options is recorded as an early exercise liability on the balance sheets and will be transferred to common stock and additional paid-in capital as such shares vest.

**11. Related Party Transactions**

Since inception the Company has entered into multiple agreements with Amunix which (i) with its affiliates, owns 10% of the Company's preferred stock outstanding at December 31, 2013, and (ii) is represented on the Company's Board of Directors. These agreements between the Company and Amunix include the following:

License Agreement effective December 29, 2008, as amended, ( "License Agreement" ), pursuant to which the Company has the right to develop three products, with the option to develop up to three additional products in exchange for certain additional financial considerations. Amunix granted the Company a worldwide, exclusive, revocable sub-licensable right and licensed its intellectual property for the Company to research, test and develop these products. The License Agreement obligates the Company to pay to Amunix certain future royalties related to these products. One of these products, and the option to develop one additional product, were sold to Diartis on December 30, 2010. The agreement was further amended at the close of the Company's Series C preferred stock financing on January 7, 2013, to clarify the technology included in the License Agreement;

The Company will pay Amunix additional consideration, in either cash or the Company's stock, for additional targets selected by the Company. The Company will also pay up to \$30.0 million of milestone payments to Amunix, under certain circumstances;

Joint Research Agreement effective November 13, 2009, as amended and combined with the License Agreement, establishing the process by which new targets will be identified and subsequently developed by the parties. In particular, the respective ownership of new inventions by the parties under various scenarios is

contemplated. Overall, during the term of this agreement, the Company agreed to assign to Amunix its rights to all joint patents, and all the Company's patents that are directed to compositions, processes and methods of use or recombinant PEGylation ( rPEG ) technology and/or targets comprising rPEG;

Service Agreement ( Service Agreement ) effective December 29, 2008, as amended, setting forth the terms under which Amunix has agreed to make covered products and marketed products for the Company as contemplated by the Licensing Agreement. Under the Service Agreement, Amunix agreed to undertake and complete the research, development and other services related to the covered products and marketed products as are reasonably requested by the Company from time to time. The specific milestones, deliverables, specifications and other terms with respect to any particular services project are to be detailed in mutually agreeable statements of work, which the parties are to negotiate (reasonably and in good faith) and execute promptly after the Company's request for services;

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**VERSARTIS, INC.**

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**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

Office sublease effective September 15, 2009 which expired in November 2011 (Refer to Note 7);

Employee Cost Sharing Agreement, effective January 19, 2010, for the term of one year, whereby the Company makes certain employees available to Amunix to perform business development and finance services with respect to a Consulting Agreement. Amunix, Inc. will reimburse the Company a percentage of the employees' salary and benefits. This Agreement expired on February 1, 2012.

The aggregate operating expenses included in the statements of operations and comprehensive loss pertaining to these agreements were approximately \$74,000 and \$0 for the years ended December 31, 2012 and 2013, respectively, and \$7.4 million for the period from December 10, 2008 (date of inception) to December 31, 2013. There were no amounts receivable or payable at December 31, 2013 pertaining to these agreements.

Effective May 12, 2009, the Company entered into a consulting agreement with Mark de Boer, Ph.D. Mr. de Boer (i) is a partner with Index Ventures which owns 24% of the Company's preferred stock outstanding at December 31, 2013, and (ii) had served as Chairman of the Company's Board of Directors. The consulting fees were incurred in the ordinary course of business, and were zero for the year ended December 31, 2012 and \$120,000 for the period from December 10, 2008 (date of inception) to December 31, 2013. The consulting agreement terminated on December 10, 2010 and Mr. de Boer left the Board of Directors on February 14, 2011. In May 2011, the Company declined to repurchase unvested option shares from Mr. de Boer, thereby accelerating the vesting of 10,185 shares of common stock. The Company recognized an additional \$1,000 of stock compensation expense in 2011 related to this transaction.

The Company entered into a Services Agreement with Diartis dated February 14, 2011 for a term equal to the term of the Amunix License Agreement (see above). Under this agreement, the Company will provide certain administrative services to Diartis related to the management of its Phase 1a Human Clinical Trial for the treatment of certain metabolic diseases, as a clinical research organization.

In March 2013, the Company ended its relationship with Diartis and terminated the Services Agreement between the companies.

The aggregate operating expenses included in the statements of operations and comprehensive loss pertaining to these agreements were approximately \$1.4 million and \$0 for the years ended December 31, 2012 and 2013, respectively, and \$3.9 million for the period from December 10, 2008 (inception) to December 31, 2013. At December 31, 2012, the Company had \$84,000, in other receivable due from Diartis, and \$0, in accounts payable to third parties related to the conduct of business for Diartis. There were no other receivables due from Diartis or accounts payable to third parties related to the conduct of business for Diartis at December 31, 2013.

**12. Sale of Assets**

In December 2010, the Company sold its interest in the development of therapeutic proteins for the treatment of metabolic diseases and certain related rights and fixed assets to Diartis (a related party) under an Asset Purchase Agreement for proceeds of \$1.0 million in the form of a note receivable due to the Company on December 31, 2012 with fixed interest rate of 5% per annum. The Company did not recognize the note or the gain on sale at December 31, 2010 because the Company could not conclude with reasonable assurance that this note will be paid when it comes due. In November 2011, the Company distributed this note to the Company's stockholders in proportion to their ownership interest in the Company on December 30, 2010.

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**Table of Contents****VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)****13. Income Taxes**

There is no provision for federal income taxes in 2012 and 2013 and for the period from December 10, 2008 (date of inception) to December 31, 2013, respectively.

Income tax expense in 2012 and 2013 differed from the amount expected by applying the statutory federal tax rate to the income or loss before taxes as summarized below:

|   | <b>December 31,</b> |             |
|---|---------------------|-------------|
|   | <b>2012</b>         | <b>2013</b> |
| Federal tax benefit at statutory rate   | 34%                 | 34%         |
| State tax benefit net of federal effect |                     |             |
| Change in valuation allowance           | (33%)               | (42)%       |
| Research and development credits        |                     | 9%          |
| Non-deductible expenses and other       | (1)%                | (1)%        |
| Total                                   | 0%                  | 0%          |

Deferred income taxes reflect the net tax effects of net operating loss and tax credit carryforwards and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The deferred tax assets were calculated using an effective tax rate of 40%. Significant components of the Company's net deferred tax assets at December 31, 2012 and 2013 are as follows (in thousands):

|                                      | <b>December 31,</b> |             |
|--------------------------------------|---------------------|-------------|
|                                      | <b>2012</b>         | <b>2013</b> |
| Net operating loss carry forwards    | \$ 14,090           | \$ 21,414   |
| Research and development tax credits | 540                 | 2,414       |
| Accruals and reserves                | 176                 | 47          |
| Depreciation and amortization        | 46                  | 89          |
| Total deferred tax assets            | 14,852              | 23,964      |
| Less: Valuation allowance            | (14,852)            | (23,964)    |
| Net deferred tax assets              | \$                  | \$          |

The Company's accounting for deferred taxes involves the evaluation of a number of factors concerning the realizability of its net deferred tax assets. The Company primarily considered such factors as its history of operating losses, the nature of the Company's deferred tax assets, and the timing, likelihood and amount, if any, of future taxable income during the periods in which those temporary differences and carryforwards become deductible. At present, the Company does not believe that it is more likely than not that the deferred tax assets will be realized; accordingly, a full valuation allowance has been established and no deferred tax asset is shown in the accompanying balance sheets.

The valuation allowance increased by approximately \$5.2 million in 2012 and \$9.1 million in 2013.

At December 31, 2013, the Company has net operating loss carryforwards for federal income tax purposes of approximately \$53.7 million and federal research and development tax credits of approximately \$932,000, which begin to expire in 2029. The Company also has net operating loss carryforwards for state income tax

**Table of Contents****VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

purposes of approximately \$53.7 million, which begin to expire in 2029, and state research and development tax credits of approximately \$538,000 which have no expiration date. Additionally, the Company has an Orphan Drug Credit of approximately \$1.4 million for federal income tax purposes, which begins to expire in 2033.

Utilization of net operating losses and tax credit carryforwards may be limited by the ownership change rules, as defined in Section 382 of the Internal Revenue Code (any such limitation, a Section 382 limitation). Similar rules may apply under state tax laws. The Company has performed an analysis to determine whether an ownership change occurred from inception to December 31, 2013. Based on this analysis, management determined that the Company did experience historical ownership changes of greater than 50% during this period. Therefore, the utilization of a portion of the Company's net operating losses and credit carryforwards is currently limited. However, these Section 382 limitations are not expected to result in a permanent loss of the net operating losses and credit carryforwards. As such, a reduction to the Company's gross deferred tax asset for its net operating loss and tax credit carryforwards is not necessary prior to considering the valuation allowance. In the event the Company experiences any subsequent changes in ownership, the amount of net operating losses and research and development credit carryforwards useable in any taxable year could be limited and may expire unutilized.

The Company follows the provisions of FASB Accounting Standards Codification 740-10 (ASC 740-10), Accounting for Uncertainty in Income Taxes. ASC 740-10 prescribes a comprehensive model for the recognition, measurement, presentation and disclosure in financial statements of uncertain tax positions that have been taken or expected to be taken on a tax return. No liability related to uncertain tax positions is recorded in the financial statements. At December 31, 2012 and 2013, the Company's reserve for unrecognized tax benefits is approximately \$73,000 and \$287,000, respectively. Due to the full valuation allowance at December 31, 2013, current adjustments to the unrecognized tax benefit will have no impact on the Company's effective income tax rate; any adjustments made after the valuation allowance is released will have an impact on the tax rate. The Company does not anticipate any significant change in its uncertain tax positions within 12 months of this reporting date. The Company includes penalties and interest expense related to income taxes as a component of other expense and interest expense, respectively, as necessary.

Because the statute of limitations does not expire until after the net operating loss and credit carryforwards are actually used, the statute is open for all tax years from inception, that is, for the period from December 10, 2008 (date of inception) to December 31, 2013 and forward for federal and state tax purposes.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

|  | <b>Amount</b> |
|--|---------------|
| Balance at January 1, 2012                                     | \$ 62         |
| Increases based on tax positions taken during a current period | 11            |

|  |     |
|--|-----|
| Balance at December 31, 2012                                   | 73  |
| Increases based on tax positions taken during a prior period   | 31  |
| Increases based on tax positions taken during a current period | 183 |

Balance at December 31, 2013 \$ 287

All tax years remain open for examination by federal and state tax authorities.

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[Table of Contents](#)**VERSARTIS, INC.****(A development stage company)****NOTES TO FINANCIAL STATEMENTS (CONTINUED)****14. Defined Contribution Plan**

The Company sponsors a 401(k) Plan, which stipulates that eligible employees can elect to contribute to the 401(k) Plan, subject to certain limitations of eligible compensation. The Company may match employee contributions in amounts to be determined at the Company's sole discretion. To date, the Company has not made any matching contributions.

**15. Net loss per share and Unaudited Pro Forma per Share of Common Stock**

The following table summarizes the computation of basic and diluted net loss per share attributable to common stockholders of the Company (in thousands, except per share data):

|  | <b>December 31,</b> |             |
|--|---------------------|-------------|
|  | <b>2012</b>         | <b>2013</b> |
| Net loss — basic and diluted   | \$ (13,217)         | \$ (18,497) |
| Weighted-average shares outstanding  | 130,718             | 450,061     |
| Less: weighted average shares subject to repurchase                          | (15,499)            | (61)        |
| Weighted average shares used to compute basic and diluted net loss per share | 115,219             | 450,000     |
| Basic and diluted net loss per common share                                  | \$ (114.71)         | \$ (41.10)  |

Basic net loss attributable to common stockholders per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted net loss attributable to common stockholders per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common shares and dilutive common stock equivalents outstanding for the period, determined using the treasury-stock method and the as-if converted method, for convertible securities, if inclusion of these is dilutive. Because the Company has reported a net loss for the years ended December 31, 2012 and 2013, diluted net loss per common share is the same as basic net loss per common share for those years.

The following potentially dilutive securities outstanding at the end of the years presented have been excluded from the computation of diluted shares outstanding:

**December 31,**

|   | <b>2012</b> | <b>2013</b> |
|---|-------------|-------------|
| Convertible preferred stock                                     | 5,991,757   | 10,491,140  |
| Warrants to purchase convertible preferred stock <sup>(1)</sup> | 173,912     | 173,912     |
| Options to purchase common stock                                | 462,471     | 1,403,655   |
| Convertible notes   | 885,024     |             |

(1) Assumes exercise of warrants to purchase convertible preferred stock at \$5.17 per share.

The unaudited pro forma basic and diluted loss per share attributable to common stockholders for the year ended December 31, 2013 gives effect to the automatic conversion of all shares of convertible preferred stock outstanding as of December 31, 2013 upon an initial public offering by treating all shares of convertible preferred stock as if they had been converted to common stock. Shares to be sold in the offering are excluded from the

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unaudited pro forma basic and diluted loss per share attributable to common stockholders calculations. As the Company incurred net losses for the year ended December 31, 2013 there is no income allocation required under the two class method or dilution attributed to pro forma weighted average shares outstanding in the calculation of pro forma diluted loss per share attributable to common stockholders.

Unaudited pro forma basic and diluted loss per share attributable to common stockholders is computed as follows (in thousands, except per share data):

|  | <b>December<br/>31, 2013<br/>(unaudited)</b> |
|--|--|
| <b>Pro forma loss per share basic and diluted</b>  |  |
| <b>Numerator:</b>  |  |
| Net loss basic and diluted   | \$ (18,497)                                  |
| Interest expense related to convertible notes  | 128  |
| Change in fair value of convertible preferred stock warrant liability                        | 41   |
| Change in fair value of convertible preferred stock call option liability                    | (969)  |
| Adjusted net loss attributable to common stockholders  | \$ (19,297)                                  |
| <b>Denominator:</b>  |  |
| Weighted-average shares used to compute basic and diluted net loss per share                 | 450,000                                      |
| Adjustment for assumed effect of conversion of convertible notes into common stock           | 14,574                                       |
| Adjustment for assumed exercise of preferred stock warrants                                  | 128,908                                      |
| Adjustments to reflect the assumed conversion of convertible preferred stock                 | 9,104,881                                    |
| Pro forma weighted average number of shares outstanding basic and diluted net loss per share | 9,698,363                                    |
| Pro forma net loss per share basic and diluted   | \$ (1.99)                                    |

**16. Subsequent Events**

The Company has evaluated subsequent events for financial statement purposes occurring through February 17, 2014, the date on which those financial statements were available to be issued, and subsequently through March 18, 2014, and determined that no additional subsequent events had occurred that would require recognition in these financial statements and all material subsequent events that require disclosure have been disclosed.

In February 2014, the Company granted options to purchase an aggregate of 537,194 shares of common stock to employees at a weighted average exercise price of \$8.09 per share, which options vest 25% upon the first anniversary of the grant date and 1/36 per month thereafter.

In February 2014, the Company sold and issued the 13,168,291 previously authorized shares of Series D-2 convertible preferred stock for gross cash proceeds of \$10.0 million.

In February 2014, the Company authorized, sold and issued 48,758,857 shares of Series E convertible preferred stock for gross cash proceeds of \$55.0 million.

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**VERSARTIS, INC.**

**(A development stage company)**

**NOTES TO FINANCIAL STATEMENTS (CONTINUED)**

In February 2014, the Company authorized an additional 994,632 shares of common stock for issuance under the 2009 Plan in connection with the Series D-2 and Series E preferred stock financings, bringing the maximum number of shares of our common stock that may be issued under the 2009 Plan to 2,562,970.

On March 6, 2014, the Company effected a 1-for-11.5 reverse stock split of the Company's issued and outstanding shares of common stock. The par value of the common stock was not adjusted as a result of the reverse stock split. All issued and outstanding common stock share and per share amounts included in the accompanying financial statements have been adjusted to reflect this reverse stock split for all periods presented, and the conversion ratio of the preferred stock was adjusted accordingly.

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Through and including \_\_\_\_\_, 2014 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

**Table of Contents****PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other expenses of issuance and distribution**

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale and distribution of our common stock being registered. All amounts are estimates except for the SEC registration fee, the FINRA filing fee, and the listing fee of The NASDAQ Global Select Market.

|  | <b>Payable by<br/>the registrant</b> |
|--|--------------------------------------|
| SEC registration fee                           | \$18,664                             |
| FINRA filing fee                               | 22,235                               |
| The NASDAQ Global Select Market listing fee    | 125,000                              |
| Legal fees and expenses                        | 1,400,000                            |
| Accounting fees and expenses                   | 600,000                              |
| Printing and engraving expenses                | 200,000                              |
| Transfer agent and registrar fees and expenses | 10,000                               |
| Blue sky fees and expenses                     |                                      |
| Miscellaneous fees and expenses                | 101                                  |
| <b>Total</b>                                   | <b>\$2,376,000</b>                   |

**Item 14. Indemnification of directors and officers**

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended, or the Securities Act.

Our amended and restated certificate of incorporation provides for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and our amended and restated bylaws provide for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law.

We have entered and expect to continue to enter into agreements to indemnify our directors and executive officers. With certain exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding.

We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act and the Exchange Act of 1934, as amended, that might be incurred by any director or officer in his capacity as such.

In an underwriting agreement that we will enter into in connection with the sale of our common stock being registered hereby the underwriters will agree to indemnify, under certain circumstances, us, our officers, our directors, and our controlling persons within the meaning of the Securities Act, against certain liabilities.

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**Item 15. Recent sales of unregistered securities**

The following sets forth information regarding all unregistered securities sold since January 1, 2011:

**Preferred stock issuances**

On February 14, 2011, January 18, 2012 and May 1, 2012, we issued an aggregate of 46,905,247 shares of our Series B convertible preferred stock to eight accredited investors at a per share price of \$0.45, for aggregate consideration of approximately \$21,107,360. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on a basis of 11.5 shares to one.

On October 12, 2012, we issued convertible promissory notes for an aggregate principal amount of approximately \$4.5 million and warrants to purchase shares of our Series B convertible preferred stock at an exercise price of \$0.45 per share to certain holders of our Series B Preferred Stock. On January 7, 2013, we issued 10,195,552 shares of our Series B convertible preferred stock upon conversion of the convertible promissory notes. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on a basis of 11.5 shares to one.

On January 7, 2013, we issued an aggregate of 10,195,552 shares of our Series B convertible preferred stock to five accredited investors upon the conversion of convertible promissory notes in the aggregate principal amount of \$4,500,000. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on a basis of 11.5 shares to one.

On January 7, 2013 and July 8, 2013, we issued an aggregate of 36,444,444 shares of our Series C convertible preferred stock to seven accredited investors at a per share price of \$0.5625, for aggregate consideration of approximately \$20,500,000. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on a basis of 11.5 shares to one.

On October 1, 2013, we issued an aggregate of 17,777,777 shares of our Series D-1 convertible preferred stock to 10 accredited investors at a per share price of \$0.5625, for aggregate consideration of approximately \$10,000,000. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on a basis of 11.5 shares to one.

On February 4, 2014, pursuant to the Series D Securities Purchase Agreement entered into in October 2013, we issued an aggregate of 13,168,291 shares of our Series D-2 convertible preferred stock to 10 accredited investors at a per share price of \$0.7594, for aggregate consideration of approximately \$10,000,000. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on a basis of 11.5 shares to one.

On February 14, 2014, we issued an aggregate of 48,758,857 shares of our Series E convertible preferred stock to 19 accredited investors at a per share price of \$1.128, for aggregate consideration of approximately \$55,000,000. Following our reverse stock split that became effective on March 6, 2014, these shares are convertible into common stock on a basis of 11.5 shares to one.

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**Table of Contents****Option and common stock issuances**

From January 1, 2011 to date, we have granted to our directors, officers, employees and consultants options to purchase an aggregate of 2,035,941 shares of common stock under our 2009 Stock Plan at exercise prices ranging from \$1.26 to \$8.165 per share.

From January 1, 2011 to date, we have issued and sold to our directors, officers, employees and consultants an aggregate of 30,827 shares of common stock upon the exercise of options under our 2009 Stock Plan at exercise prices ranging from \$1.26 to \$1.61 per share, for an aggregate amount of approximately \$39,287.

Unless otherwise stated, the sales of the above securities were deemed to be exempt from registration under the Securities Act in reliance upon Section 4(2) of the Securities Act (or Regulation D promulgated thereunder), or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. We did not pay or give, directly or indirectly, any commission or other remuneration, including underwriting discounts or commissions, in connection with any of the issuances of securities listed above. The recipients of the securities in each of these transactions 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, and appropriate legends were placed upon the stock certificates issued in these transactions. All recipients had adequate access, through their employment or other relationship with us or through other access to information provided by us, to information about us. The sales of these securities were made without any general solicitation or advertising.

**Item 16. Exhibits and financial statement schedules****(a) Exhibits****Exhibit index****Exhibit**

| <b>No.</b> | <b>Description</b>   |
|------------|--|
| 1.1**      | Form of Underwriting Agreement.  |
| 3.1**      | Amended and Restated Certificate of Incorporation, as currently in effect.                               |
| 3.2**      | Bylaws, as currently in effect.  |
| 3.3**      | Amended and Restated Certificate of Incorporation to become effective upon the closing of this offering. |
| 3.4**      | Amended and Restated Bylaws to become effective upon the closing of this offering.                       |
| 3.5**      | Certificate of Amendment to Amended and Restated Certificate of Incorporation, as currently in effect.   |

|        |   |
|--------|---|
| 4.1    | [Reserved]  |
| 4.2**  | Form of Warrant to Purchase Equity Securities   |
| 5.1    | Opinion of Cooley LLP.  |
| 10.1** | Fourth Amended and Restated Investors Rights Agreement by and among the Company and the parties thereto, dated as of February 14, 2014. |

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**Exhibit**

| <b>No.</b> | <b>Description</b>   |
|------------|--|
| 10.2**     | Lease by and between the Company and CA-Shorebreeze Limited Partnership, dated as of August 31, 2011.  |
| 10.3**     | 2009 Stock Plan, as amended.   |
| 10.4**     | Form of Notice of Stock Option Grant and Incentive Stock Option Agreement under 2009 Stock Plan.   |
| 10.5**     | Form of Notice of Stock Option Grant and Non-Statutory Stock Option Agreement under 2009 Stock Plan.   |
| 10.6**     | 2014 Equity Incentive Plan.  |
| 10.7**     | Change in Control Severance Plan.  |
| 10.8       | [Reserved]   |
| 10.9**     | 2014 Employee Stock Purchase Plan.   |
| 10.10**    | Form of Indemnification Agreement by and between the Company and each of its directors and officers.   |
| 10.11      | Technology Transfer and Clinical Supply Agreement by and between the Company and Boehringer Ingelheim RCV GmbH & Co KG, dated as of October 23, 2012.                        |
| 10.12      | Amendment No. 1 to the Technology Transfer, Clinical Supply Agreement by and between the Company and Boehringer Ingelheim RCV GmbH & Co KG, effective as of October 1, 2013. |
| 10.13 **   | Assignment of Technology Transfer and Clinical Supply Agreement by and between the Company and Boehringer Ingelheim RCV GmbH & Co KG, effective as of January 1, 2014.       |
| 10.14 **   | Services Agreement by and between the Company and Amunix Operating Inc., dated as of March 18, 2013.   |
| 10.15 **   | Second Amended and Restated Licensing Agreement by and between the Company and Amunix Operating, Inc., dated as of December 30, 2010.  |
| 10.16 **   | Letter Agreement by and between the Company and Amunix Operating, Inc., dated as of February 3, 2011.  |
| 10.17 **   | Amendment No. 1 to the Second Amended and Restated Licensing Agreement by and between the Company and Amunix Operating, Inc., dated as of January 7, 2013.                   |
| 10.18**    | Offer letter between the Company and Jeffrey L. Cleland, Ph.D., dated as of December 20, 2010.   |
| 10.19**    | Offer letter between the Company and Joshua T. Brumm, dated as of November 8, 2013.  |
| 10.20**    | Amended and restated offer letter between the Company and Paul Westberg, dated as of February 10, 2011.  |
| 10.21**    | Amendment No. 2 to Second Amended and Restated Licensing Agreement by and between the Company and Amunix Operating, Inc., dated as of February 25, 2014.                     |

**Table of Contents****Exhibit**

| <b>No.</b> | <b>Description</b>  |
|------------|---|
| 10.22**    | Office Lease by and between the Company and Kilroy Realty, L.P., dated as of February 27, 2014. |
| 23.1       | Consent of Independent Registered Public Accounting Firm.                                       |
| 23.2**     | Consent of Cooley LLP (included in Exhibit 5.1).  |
| 24.1**     | Power of Attorney (see page II-6 to the original filing of this registration statement).        |
| 24.2**     | Power of Attorney for John Varian.  |

\*\* Previously filed.

Registrant has requested confidential treatment for certain portions of this agreement. This exhibit omits the information subject to this confidentiality request. The omitted portions have been filed separately with the SEC.

**Item 17. Undertakings**

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the Underwriting Agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

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

The undersigned registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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**Table of Contents****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 Redwood City, State of California, on March 19, 2014.

**VERSARTIS, INC.**

By: /s/ Jeffrey L. Cleland  
 Jeffrey L. Cleland, Ph.D.  
 Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

| <b>Signature</b>                                    | <b>Title</b>  | <b>Date</b>    |
|---|---|----------------|
| /s/ Jeffrey L. Cleland<br>Jeffrey L. Cleland, Ph.D. | Chief Executive Officer and Director<br><br>(Principal Executive Officer) | March 19, 2014 |
| /s/ Joshua T. Brumm<br>Joshua T. Brumm              | Chief Financial Officer (Principal<br>Financial and Accounting Officer)   | March 19, 2014 |
| *<br>Jay P. Shepard                                 | Chairman of the Board of Directors  | March 19, 2014 |
| *<br>Srinivas Akkaraju, M.D., Ph.D.                 | Director  | March 19, 2014 |
| *<br>Francesco De Rubertis, Ph.D., C.F.A.           | Director  | March 19, 2014 |
| *<br>Michael Dybbs, Ph.D.                           | Director  | March 19, 2014 |
| *<br>Edmon R. Jennings                              | Director  | March 19, 2014 |
| *<br>Shahzad Malik                                  | Director  | March 19, 2014 |
| *<br>Anthony Y. Sun, M.D.                           | Director  | March 19, 2014 |



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|                                 | <b>Signature</b>                       | <b>Title</b> | <b>Date</b>    |
|---------------------------------|--|--------------|----------------|
|                                 | *                                      |              |                |
|                                 | John Varian                            | Director     | March 19, 2014 |
| * Pursuant to Power of Attorney |  |              |                |
| By:                             | /s/ Joshua T. Brumm<br>Joshua T. Brumm |              |                |
|                                 | Attorney-in-Fact                       |              |                |

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**Exhibit index**

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| 1.1**              | Form of Underwriting Agreement.  |
| 3.1**              | Amended and Restated Certificate of Incorporation, as currently in effect.   |
| 3.2**              | Bylaws, as currently in effect.  |
| 3.3**              | Amended and Restated Certificate of Incorporation to become effective upon the closing of this offering.   |
| 3.4**              | Amended and Restated Bylaws to become effective upon the closing of this offering.   |
| 3.5**              | Certificate of Amendment to Amended and Restated Certificate of Incorporation, as currently in effect.   |
| 4.1                | [Reserved]   |
| 4.2**              | Form of Warrant to Purchase Equity Securities  |
| 5.1                | Opinion of Cooley LLP.   |
| 10.1**             | Fourth Amended and Restated Investors' Rights Agreement by and among the Company and the parties thereto, dated as of February 14, 2014.                                     |
| 10.2**             | Lease by and between the Company and CA-Shorebreeze Limited Partnership, dated as of August 31, 2011.  |
| 10.3**             | 2009 Stock Plan, as amended.   |
| 10.4**             | Form of Notice of Stock Option Grant and Incentive Stock Option Agreement under 2009 Stock Plan.   |
| 10.5**             | Form of Notice of Stock Option Grant and Non-Statutory Stock Option Agreement under 2009 Stock Plan.   |
| 10.6**             | 2014 Equity Incentive Plan.  |
| 10.7**             | Change in Control Severance Plan.  |
| 10.8               | [Reserved]   |
| 10.9**             | 2014 Employee Stock Purchase Plan.   |
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Company and Boehringer Ingelheim RCV GmbH & Co KG, effective as of January 1, 2014.

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| 10.15 **           | Second Amended and Restated Licensing Agreement by and between the Company and Amunix Operating, Inc., dated as of December 30, 2010.                      |
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