

Subject to completion, dated June 1, 2014

5,000,000 shares



Common Stock

This is an initial public offering of common stock by ZS Pharma, Inc. We are selling 5,000,000 shares of common stock. The initial public offering price is expected to be between \$15.00 and \$17.00 per share.

Prior to this offering, there has been no public market for our common stock. We have applied for listing of our common stock on The NASDAQ Global Market under the symbol “ZSPH”.

We are an “emerging growth company” under applicable Securities and Exchange Commission rules and will be subject to reduced public company reporting requirements.

	Per share	Total
Initial public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds to ZS Pharma, Inc., before expenses	\$	\$

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

We have granted the underwriters an option for a period of 30 days to purchase up to 750,000 additional shares of common stock.

Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page 9.

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

The underwriters expect to deliver the shares of common stock to investors on or about , 2014.

J.P. Morgan

Credit Suisse

BMO Capital Markets

William Blair

THE OFFERING

Issuer ZS Pharma, Inc.

Common stock we are offering 5,000,000 shares (or 5,750,000 if the underwriters exercise their option to purchase additional shares)

Common stock to be outstanding after the offering 18,746,508 shares (or 19,496,508 if the underwriters exercise their option to purchase additional shares)

Underwriters' option to purchase additional shares 750,000 shares

Use of proceeds We estimate that the net proceeds from this offering will be approximately \$71.4 million, or approximately \$82.6 million if the underwriters exercise their option to purchase additional shares in full, at an assumed initial public offering price of \$16.00 per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We currently expect to use the net proceeds from this offering as follows:

- approximately \$3.0 million to complete our ongoing Phase III (ZS004) clinical trial;
- approximately \$9.0 million to advance our planned long-term safety trial, ZS005, through the end of 2015;
- approximately \$5.0 million to seek FDA, EMA and other international approvals to market ZS-9 for the treatment of hyperkalemia;
- approximately \$18.0 million to fund the scale-up of manufacturing for ZS-9 for commercial launch;
- approximately \$29.0 million to build a specialty sales force infrastructure and to complete pre-commercialization marketing activities for ZS-9 in the United States; and
- the balance for working capital and other general corporate purposes.

See "Use of Proceeds" for a more complete description of the intended use of proceeds from this offering.

Risk factors See "Risk Factors" and other information included in this prospectus for a discussion of factors that you should consider carefully before deciding to invest in our common stock.

Proposed symbol on The NASDAQ Global Market "ZSPH"

The number of shares of common stock to be outstanding after this offering is based on 13,746,508 shares of common stock outstanding on an as converted basis as of March 31, 2014, and excludes the following:

- 3,587,271 shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2014, with a weighted-average exercise price of \$2.36 per share;
- 490,386 shares of our common stock issuable upon the exercise of stock options granted after March 31, 2014, with an exercise price of \$10.92 per share; and
- 1,949,797 shares of common stock under our 2014 Incentive Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering, consisting of:
 - 549,586 shares of common stock reserved for future awards under our 2014 Incentive Plan, which will become effective immediately prior to the consummation of this offering; and
 - 1,400,211 shares of common stock reserved for issuance pursuant to future awards under our Fourth Amended Stock Incentive Plan, as amended, which will become available for issuance under our 2014 Incentive Plan immediately prior to the consummation of this offering.

Unless otherwise indicated, the information in this prospectus assumes no exercise of the underwriters' option to purchase additional shares and gives effect to:

- a 1-for-2.56437 reverse stock split of our common stock to be effected prior to the effectiveness of the registration statement of which this prospectus is a part;
- the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 11,601,775 shares of common stock immediately prior to the consummation of this offering;
- the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Series B Warrants (which will expire upon completion of this offering if not exercised) into 289,964 shares of our common stock upon conversion of Series B preferred stock issuable upon exercise of such warrants;
- the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Common Stock Warrants (which will expire upon completion of this offering if not exercised) into 225,773 shares of our common stock; and
- the filing and effectiveness of our seventh amended and restated certificate of incorporation, which will occur immediately prior to the consummation of this offering.

We refer to our Series A, Series B, Series C and Series D preferred stock collectively as “convertible preferred stock” in this prospectus, as well as for financial reporting purposes and in the financial tables included in this prospectus, as more fully explained in Note 6 to our audited financial statements. In this prospectus (other than for financial reporting purposes and in the financial tables included in this prospectus), we refer to our outstanding warrants to purchase shares of our Series B preferred stock issued in November 2011 and October 2012 as our Series B Warrants and to our outstanding warrants to purchase shares of our common stock issued in November and December 2011, January and July 2012 and August 2013 as our Common Stock Warrants.

SUMMARY FINANCIAL DATA

The following tables set forth a summary of our historical financial data as of the dates indicated. The statement of operations data for the years ended December 31, 2012 and 2013 are derived from our audited financial statements included elsewhere in this prospectus. The statement of operations data for the three months ended March 31, 2013 and 2014 and the balance sheet data as of March 31, 2014 are derived from our unaudited interim financial statements included elsewhere in this prospectus. The unaudited interim financial statements have been prepared on the same basis as the audited financial statements and reflect, in the opinion of our management, all adjustments of a normal, recurring nature that are necessary for a fair statement of the unaudited interim financial statements. You should read this data together with our financial statements and related notes appearing elsewhere in this prospectus and the information under the captions “Selected Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Our historical results are not necessarily indicative of our future results and our results for the three months ended March 31, 2014 are not necessarily indicative of results to be expected for the full year ended December 31, 2014.

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2013	2013	2014
	(in thousands, except share and per share data) (unaudited)			
Statement of Operations Data:				
Operating expenses:				
Research and development	\$ 6,989	\$ 24,508	\$ 4,409	\$ 5,259
General and administrative	1,148	7,686	715	4,017
Total operating expenses	8,137	32,194	5,124	9,276
Loss from operations	(8,137)	(32,194)	(5,124)	(9,276)
Interest and other income (expense), net	(17)	(30)	(12)	(9)
Interest expense	2,099	9	5	3
Expense to mark warrants to market	62	1,424	109	1,297
Net loss	(10,281)	(33,597)	(5,226)	(10,567)
Preferred stock accretion	(174)	(689)	(170)	(181)
Net loss attributable to common stockholders	<u>\$ (10,455)</u>	<u>\$ (34,286)</u>	<u>\$ (5,396)</u>	<u>\$ (10,748)</u>
Per share information:				
Net loss attributable to common stockholders, basic and diluted	<u>\$ (6.74)</u>	<u>\$ (21.84)</u>	<u>\$ (3.46)</u>	<u>\$ (6.60)</u>
Weighted-average common shares used to compute net loss per share attributable to common stockholders, basic and diluted ⁽¹⁾				
	<u>1,552,276</u>	<u>1,569,583</u>	<u>1,557,661</u>	<u>1,628,997</u>
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited) ⁽¹⁾				
		<u>\$ (3.18)</u>		<u>\$ (0.75)</u>
Weighted-average number of shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited) ⁽¹⁾				
		<u>10,339,922</u>		<u>12,549,122</u>

- (1) The pro forma net loss per share of common stock, basic and diluted, for the year ended December 31, 2013 and the three months ended March 31, 2014 reflects the conversion of all outstanding shares of our convertible preferred stock into shares of common stock immediately prior to the consummation of this offering. The pro forma net loss per share of common stock, basic and diluted, does not give effect to the issuance of shares from the proposed initial public offering nor does it give effect to potential dilutive securities where the impact would be anti-dilutive. See Note 1 to our audited financial statements included elsewhere in this prospectus.

The table below presents our balance sheet data as of March 31, 2014:

- on an actual basis;
- on a pro forma basis to give effect to:
 - a 1-for-2.56437 reverse stock split of our common stock to be effected prior to the effectiveness of the registration statement of which this prospectus is a part;
 - the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 11,601,775 shares of common stock immediately prior to the consummation of this offering;
 - the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Series B Warrants (which will expire upon completion of this offering if not exercised) into 289,964 shares of our common stock upon conversion of Series B preferred stock issuable upon exercise of such warrants;
 - the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Common Stock Warrants (which will expire upon completion of this offering if not exercised) into 225,773 shares of our common stock; and
 - the filing and effectiveness of our seventh amended and restated certificate of incorporation, which will occur immediately prior to the consummation of this offering; and
- on a pro forma as adjusted basis to give further effect to the sale of 5,000,000 shares of common stock in this offering at an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

	As of March 31, 2014		
	Actual	Pro Forma (unaudited) (in thousands)	Pro Forma As Adjusted ⁽¹⁾
Balance Sheet Data:			
Cash and cash equivalents	\$ 23,833	\$ 23,833	\$ 95,233
Working capital	19,995	19,995	91,395
Total assets	30,642	30,642	102,042
Convertible preferred stock warrant liability	3,964	—	—
Convertible preferred stock	77,765	—	—
Deficit accumulated during the development stage	(60,801)	(60,801)	(60,801)
Total stockholders' equity (deficit)	(54,901)	25,632	97,032

- (1) Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) pro forma as adjusted working capital (deficit), total assets and total stockholders' equity (deficit) by approximately \$4.7 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) pro forma as adjusted working capital (deficit), total assets and total stockholders' equity (deficit) by approximately \$14.9 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 and other terms of this offering determined at pricing.

will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not develop following the consummation of this offering or, if it is developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other businesses, applications or technologies using our shares as consideration.

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

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

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

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

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

The initial public offering price of our common stock will be substantially higher than the pro forma net tangible book value per share of our common stock before giving effect to this offering. Accordingly, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately \$10.82 per share, based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and our pro forma net tangible book value as of March 31, 2014. In addition, following this offering, purchasers in this offering will have contributed approximately 50% of the total gross consideration paid by stockholders to us to purchase shares of our common stock, through March 31, 2014, but will own only approximately 27% of the shares of common stock outstanding immediately after this offering. Furthermore, if the underwriters exercise their over-allotment option, or outstanding options and warrants are exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section titled “Dilution.”

Raising additional capital may restrict our operations or require us to relinquish rights to our technologies or product candidates, and if we sell shares of our common stock in future financings, stockholders may experience immediate dilution and, as a result, our stock price may decline.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, partnerships and marketing, distribution or licensing arrangements. We do not have any committed external source of funds. We may also from time to time issue additional shares of common stock at a discount from the then current trading price of our common stock. As a result, our stockholders would experience immediate dilution upon the purchase of any shares of our common stock sold at such discount. In addition, as opportunities present themselves, we may enter into financing or similar arrangements in the future, including the issuance of debt securities, preferred stock or common stock. If we issue common stock or securities convertible into common stock, our common stockholders would experience additional dilution and, as a result, our stock price may decline. Additional debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise additional funds through partnerships or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

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

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based upon the number of shares outstanding as of May 31, 2014, upon the closing of this offering, we will have outstanding a total of 18,974,139 shares of common stock, assuming no exercise of the underwriters' option to purchase additional shares. Of these shares, approximately 5,000,000 shares of our common stock, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering. JP Morgan Securities LLC and Credit Suisse Securities (USA) LLC, however, may, in their sole discretion, permit our officers, directors and other stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus. After the lock-up agreements expire, as of May 31, 2014, up to an additional 13,974,139 shares of common stock will be eligible for sale in the public market, 5,859,653 of which shares are held by directors, executive officers and other affiliates and will be subject to Rule 144 under the Securities Act.

In addition, as of May 31, 2014, 5,015,868 shares of common stock that are either subject to outstanding options, reserved for future issuance under our equity incentive plans or subject to outstanding warrants will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of up to approximately 15,041,166 shares of our common stock, or approximately 79% of our total outstanding common stock as of May 31, 2014, will be entitled to rights with respect to the registration of their shares under the Securities Act, subject to vesting schedules and to the lock-up agreements described above. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares purchased by affiliates. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

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

Upon the closing of this offering, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates will beneficially own approximately 53.0% of our outstanding voting stock. Therefore, these stockholders will have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

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

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. We currently intend to use substantially all of the net proceeds of this offering for development costs relating to the validation of our commercial manufacturing process for ZS-9, manufacturing commercial supply of ZS-9, costs related to our ongoing clinical program and the submission and support of our NDA and MAA for ZS-9 and pre-commercialization marketing activities for ZS-9, and the balance for working capital and general corporate purposes. However, our use of these proceeds may differ substantially from our current plans. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause our stock price to decline.

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

Our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect immediately prior to the consummation of this offering will contain provisions that could significantly reduce the value of our shares to a potential acquirer or delay or prevent changes in control or changes in our management without the consent of our board of directors. The provisions in our charter documents will include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the ability of our board of directors to authorize the issuance of shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the ability of our board of directors to alter our bylaws without obtaining stockholder approval;
- the required approval of at least 66 2/3% of the shares entitled to vote at an election of directors to adopt, amend or repeal our bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;

USE OF PROCEEDS

We estimate that the net proceeds from the sale of 5,000,000 shares of common stock in this offering will be approximately \$71.4 million at an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares in full, we estimate that net proceeds will be approximately \$82.6 million after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately \$4.7 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, by approximately \$14.9 million, assuming the assumed initial public offering price stays the same. We do not expect that a change in the offering price or the number of shares by these amounts would have a material effect on our intended uses of the net proceeds from this offering, although it may impact the amount of time prior to which we may need to seek additional capital.

We currently expect to use our net proceeds from this offering as follows:

- approximately \$3.0 million to complete our ongoing Phase III (ZS004) clinical trial;
- approximately \$9.0 million to advance our planned long-term safety trial, ZS005, through the end of 2015;
- approximately \$5.0 million to seek FDA, EMA and other international approvals to market ZS-9 for the treatment of hyperkalemia;
- approximately \$18.0 million to fund the scale-up of our manufacturing facilities for ZS-9 for commercial launch;
- approximately \$29.0 million to build a specialty sales force infrastructure and to complete pre-commercialization marketing activities for ZS-9 in the United States; and
- the balance for working capital and other general corporate purposes.

We may also use a portion of the net proceeds to in-license, acquire or invest in additional businesses, technologies, products, or assets. Although we have no specific agreements, commitments or understandings with respect to any in-license or acquisition, we evaluate such opportunities and engage in related discussions with other companies from time to time.

Due to the uncertainties inherent in the clinical development and regulatory approval process, it is difficult to estimate with certainty the exact amounts of the net proceeds from this offering that may be used for the above purposes. As such, our management will retain broad discretion over the use of the net proceeds from this offering. The amounts and timing of our expenditures will depend upon numerous factors, including: the results of our ongoing Phase III clinical trials for ZS-9, the timing of our NDA and MAA submission to the FDA and EMA, respectively, and unforeseen delays or problems in the development of our manufacturing capabilities and supply chain.

Pending the use of the proceeds from this offering, we intend to invest the net proceeds in interest-bearing, investment-grade securities, certificates of deposit or government securities.

CAPITALIZATION

The following table sets forth our capitalization as of March 31, 2014:

- on an actual basis;
- on a pro forma basis to give effect to:
 - a 1-for-2.56437 reverse stock split of our common stock to be effected prior to the effectiveness of the registration statement of which this prospectus is a part;
 - the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 11,601,775 shares of common stock immediately prior to the consummation of this offering;
 - the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Series B Warrants (which will expire upon completion of this offering if not exercised) into 289,964 shares of our common stock upon conversion of Series B preferred stock issuable upon exercise of such warrants;
 - the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Common Stock Warrants (which will expire upon completion of this offering if not exercised) into 225,773 shares of our common stock; and
 - the filing and effectiveness of our seventh amended and restated certificate of incorporation, which will occur immediately prior to the consummation of this offering; and
- on a pro forma as adjusted basis to give further effect to the issuance and sale by us of 5,000,000 shares of our common stock in this offering at an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with our financial statements and related notes appearing elsewhere in this prospectus and the information set forth under the headings “Selected Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

As of March 31, 2014			
	Actual	Pro Forma	Pro Forma As Adjusted
	(unaudited) (in thousands, except share and per share data)		
Convertible stock warrant liability	\$ 3,964	\$ —	\$ —
Series B Convertible preferred stock, \$0.001 par value per share; 6,786,033 shares authorized, 2,261,506 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	8,389	—	—
Series C Convertible preferred stock, \$0.001 par value per share; 17,692,308 shares authorized, 6,899,281 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	43,421	—	—
Series D Convertible preferred stock, \$0.001 par value per share; 10,482,181 shares authorized, 1,858,012 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	24,759	—	—
Stockholders’ equity (deficit):			
Series A Preferred stock, \$0.001 par value per share; 1,494,966 shares authorized, 582,976 shares issued and outstanding, actual; no shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	1,196	—	—
Preferred stock, par value of \$0.001 per share: no shares authorized, issued or outstanding, actual; 5,000,000 shares authorized and no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	—
Common stock, \$0.001 par value per share; 58,000,000 shares authorized, 1,628,997 shares issued and outstanding, actual; 250,000,000 shares authorized, 13,746,508 shares issued and outstanding, pro forma; 250,000,000 shares authorized, 18,746,508 shares issued and outstanding, pro forma as adjusted	2	14	19
Additional paid-in capital	4,702	86,419	157,814
Accumulated other comprehensive income	—	—	—
Deficit accumulated during the development stage	(60,801)	(60,801)	(60,801)
Total stockholders’ equity (deficit)	(54,901)	25,632	97,032
Total capitalization	\$ 25,632	\$ 25,632	\$ 97,032

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) pro forma as adjusted additional paid-in capital, total stockholders’ equity (deficit) and total capitalization by approximately \$4.7 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting 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 in the number of shares we are offering would increase (decrease) pro forma as adjusted additional paid-in capital, total stockholders’ equity (deficit) and total capitalization by approximately \$14.9 million, assuming the assumed initial public offering price per share, the midpoint of the price range as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

The outstanding share information in the table above excludes the following:

- 3,587,271 shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2014, with a weighted-average exercise price of \$2.36 per share;
- 490,386 shares of our common stock issuable upon the exercise of stock options granted after March 31, 2014, with an exercise price of \$10.92 per share; and
- 1,949,797 shares of common stock under our 2014 Incentive Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering, consisting of:
 - 549,586 shares of common stock reserved for future awards under of 2014 Incentive Plan, which will become effective immediately prior to the consummation of this offering; and
 - 1,400,211 shares of common stock reserved for issuance pursuant to future awards under our Fourth Amended Stock Incentive Plan, as amended, which will become available for issuance under our 2014 Incentive Plan immediately prior to the consummation of this offering.

DILUTION

If you invest in our common stock in this offering, your interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock in this offering and the net tangible book value per share of our common stock after this offering. As of March 31, 2014, we had a historical net tangible book value of \$25.6 million, or \$15.73 per share of common stock. Our net tangible book value represents total tangible assets less total liabilities, all divided by the number of shares of common stock outstanding on March 31, 2014. Our pro forma net tangible book value at March 31, 2014, before giving effect to this offering, was \$25.6 million, or \$1.86 per share of our common stock. Pro forma net tangible book value, before the issuance and sale of shares in this offering, gives effect to:

- a 1-for-2.56437 reverse stock split of our common stock to be effected prior to the effectiveness of the registration statement of which this prospectus is a part;
- the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 11,601,775 shares of common stock immediately prior to the consummation of this offering;
- the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Series B Warrants (which will expire upon completion of this offering if not exercised) into 289,964 shares of our common stock upon conversion of Series B preferred stock issuable upon exercise of such warrants;
- the net exercise, based on an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, of our Common Stock Warrants (which will expire upon completion of this offering if not exercised) into 225,773 shares of our common stock; and
- the filing and effectiveness of our seventh amended and restated certificate of incorporation, which will occur immediately prior to the consummation of this offering.

After giving effect to the sale of shares of common stock in this offering at an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the underwriting discounts and commissions and estimated offering expenses, our pro forma as adjusted net tangible book value at March 31, 2014 would have been approximately \$97.0 million, or \$5.18 per share. This represents an immediate increase in pro forma as adjusted net tangible book value of \$3.32 per share to existing stockholders and an immediate dilution of \$10.82 per share to new investors. The following table illustrates this per share dilution:

Assumed initial public offering price per share	\$16.00
Historical net tangible book value per share as of March 31, 2014	\$ 15.73
Pro forma decrease in net tangible book value per share	(13.87)
Pro forma net tangible book value per share as of March 31, 2014	1.86
Increase in pro forma net tangible book value per share attributable to new investors	3.32
Pro forma as adjusted net tangible book value per share after this offering	5.18
Dilution per share to new investors participating in this offering	\$10.82

A \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value as of March 31, 2014 after this offering by approximately \$4.7 million, or approximately \$0.24 per share, and dilution to investors in this offering by approximately \$0.74 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting the 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 in the number of shares we are offering would increase (decrease) our pro forma as adjusted net tangible book value as of March 31, 2014 after this offering by approximately \$14.9 million, or approximately \$0.49 per share, and would decrease (increase) dilution to investors in this offering by approximately \$0.49 per share, assuming the

assumed initial public offering price per share remains the same, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.

If the underwriters fully exercise their option to purchase additional shares, pro forma as adjusted net tangible book value per share of our common stock, as adjusted to give effect to this offering would increase to approximately \$5.55 per share, and there would be an immediate dilution of approximately \$10.45 per share to new investors.

To the extent that outstanding options or warrants with an exercise price per share that is less than the pro forma as adjusted net tangible book value per share, before giving effect to the issuance and sale of shares in this offering, are exercised, new investors will experience further dilution. If all of our outstanding options and warrants described above were exercised, our pro forma net tangible book value as of March 31, 2014, before giving effect to the issuance and sale of shares in this offering, would have been approximately \$34.1 million, or approximately \$1.96 per share, and our pro forma as adjusted net tangible book value as of March 31, 2014 after this offering would have been approximately \$105.5 million, or approximately \$4.72 per share, causing dilution to new investors of approximately \$11.28 per share.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The following table shows, as of March 31, 2014, on a pro forma as adjusted basis, after giving effect to the pro forma adjustments described above, the number of shares of common stock purchased from us, the total consideration paid to us and the average price paid per share by existing stockholders and by new investors purchasing common stock in this offering at an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting 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	13,746,508	73%	\$ 80,915,000	50%	\$ 5.89
Investors participating in this offering	5,000,000	27	80,000,000	50	\$16.00
Total	18,746,508	100%	\$160,915,000	100%	

The number of shares of common stock to be outstanding after this offering is based on 13,746,508 shares of our common stock (including our convertible preferred stock on an as-converted basis and net exercise of our Series B Warrants and Common Stock Warrants) outstanding on an as converted basis as of March 31, 2014 and excludes the following:

- 3,587,271 shares of common stock issuable upon the exercise of outstanding stock options as of March 31, 2014, with a weighted-average exercise price of \$2.36 per share;
- 490,386 shares of our common stock issuable upon the exercise of stock options granted after March 31, 2014, with an exercise price of \$10.92 per share; and
- 1,949,797 shares of common stock under our 2014 Incentive Plan, as well as any automatic increases in the number of shares of our common stock reserved for future issuance under this plan, which will become effective immediately prior to the consummation of this offering, consisting of:
 - 549,586 shares of common stock reserved for future awards under of 2014 Incentive Plan, which will become effective immediately prior to the consummation of this offering; and
 - 1,400,211 shares of common stock reserved for issuance pursuant to future awards under our Fourth Amended Stock Incentive Plan, as amended, which will become available for issuance under our 2014 Incentive Plan immediately prior to the consummation of this offering.

If the underwriters exercise their option to purchase additional shares of our common stock in full, our existing stockholders would own 71% and our new investors would own 29% of the total number of shares of our common stock outstanding upon completion of this offering. The total consideration paid by our existing stockholders would be approximately \$81 million, or 47%, and the total consideration paid by our new investors would be \$91 million, or 53%.

SELECTED FINANCIAL DATA

You should read the following selected financial data together with our financial statements, the related notes appearing at the end of this prospectus and the information under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” The selected financial data included in this section are not intended to replace the financial statements and the related notes included elsewhere in this prospectus.

We derived the selected 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 appearing elsewhere in this prospectus. We derived the statement of operations data for the three months ended March 31, 2013 and 2014 and the balance sheet data as of March 31, 2014 from our unaudited interim financial statements included elsewhere in this prospectus. The unaudited interim financial statements have been prepared on the same basis as the audited financial statements and reflect, in the opinion of our management, all adjustments of a normal, recurring nature that are necessary for a fair statement of the unaudited interim financial statements. Our historical results are not necessarily indicative of the results that may be expected in the future and our results for the three months ended March 31, 2014 are not necessarily indicative of results to be expected for the full year ended December 31, 2014.

	Year Ended December 31,		Three Months Ended March 31,	
	2012	2013	2013	2014
	(in thousands, except share and per share data)			
	(unaudited)			
Statement of Operations Data:				
Operating expenses:				
Research and development	\$ 6,989	\$ 24,508	\$ 4,409	\$ 5,259
General and administrative	1,148	7,686	715	4,017
Total operating expenses	8,137	32,194	5,124	9,276
Loss from operations	(8,137)	(32,194)	(5,124)	(9,276)
Interest and other income (expense), net	(17)	(30)	(12)	(9)
Interest expense	2,099	9	5	3
Expense to mark warrants to market	62	1,424	109	1,297
Net loss	(10,281)	(33,597)	(5,226)	(10,567)
Preferred stock accretion	(174)	(689)	(170)	(181)
Net loss attributable to common stockholders	<u>\$ (10,455)</u>	<u>\$ (34,286)</u>	<u>\$ (5,396)</u>	<u>\$ (10,748)</u>
Per share information:				
Net loss attributable to common stockholders, basic and diluted	<u>\$ (6.74)</u>	<u>\$ (21.84)</u>	<u>\$ (3.46)</u>	<u>\$ (6.60)</u>
Weighted-average common shares used to compute net loss per share attributable to common stockholders, basic and diluted ⁽¹⁾	<u>1,552,276</u>	<u>1,569,583</u>	<u>1,557,661</u>	<u>1,628,997</u>
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited) ⁽¹⁾		<u>\$ (3.18)</u>		<u>\$ (0.75)</u>
Weighted-average number of shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited) ⁽¹⁾		10,339,922		12,549,122

- (1) The pro forma net loss per share of common stock, basic and diluted, for the three months ended March 31, 2014 reflects the conversion of all outstanding shares of our convertible preferred stock into shares of common stock immediately prior to the consummation of this offering. The pro forma net loss per share of common stock, basic and diluted, does not give effect to the issuance of shares from the proposed initial public offering nor does it give effect to potential dilutive securities where the impact would be anti-dilutive. See Note 1 to our audited financial statements included elsewhere in this prospectus.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth information relating to the beneficial ownership of our common stock as of May 31, 2014 for:

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

The number of shares beneficially owned prior to this offering by each entity, person, director or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days of May 31, 2014 through the exercise of any stock option, warrants or other rights. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock held by that person. This information does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Section 13(d) and 13(g) of the Exchange Act.

The percentage of shares beneficially owned is computed on the basis of 13,945,753 shares of our common stock outstanding as of May 31, 2014, which only reflects the assumed conversion of all of our outstanding shares of convertible preferred stock into an aggregate of 11,601,775 shares of common stock and a 1-for-2.56437 reverse stock split of our common stock to be effected prior to the effectiveness of the registration statement of which this prospectus is a part. The percentage of beneficial ownership after this offering is based on 18,945,753 shares of common stock outstanding immediately after the closing of this offering, assuming no exercise of the underwriters' option to purchase additional shares of our common stock, no exercise of outstanding options and no purchases of shares in this offering by entities affiliated with our existing stockholders. Shares of our common stock that a person has the right to acquire within 60 days of May 31, 2014 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o ZS Pharma, Inc., at 508 Wrangler Drive, Suite 100, Coppell, Texas 75019.

Name and Address of Beneficial Owner	Beneficial Ownership Prior to this Offering				Beneficial Ownership After this Offering	
	Number of Outstanding Shares Beneficially Owned	Securities Exercisable Within 60 Days	Total Number of Shares Beneficially Owned	Percentage of Beneficial Ownership	Number of Shares Beneficially Owned	Percentage of Beneficial Ownership
5% Stockholders						
Alta Partners VIII, L.P. ⁽¹⁾	3,030,090	—	3,030,090	21.73%	3,030,090	15.99%
Entities affiliated with Devon Park Bioventures, L.P. ⁽²⁾	2,426,471	—	2,426,471	17.40%	2,426,471	12.81%
Entities affiliated with 3x5 Special Opportunity Fund, L.P. ⁽³⁾	2,189,983	—	2,189,983	15.70%	2,189,983	11.56%
Entities affiliated with John Dyett ⁽⁴⁾	1,632,558	—	1,632,558	11.71%	1,632,558	8.62%
Named Executive Officers and Directors						
Robert Alexander ⁽⁵⁾	—	149,484	149,484	1.06%	149,484	*
Alvaro Guillem ⁽⁶⁾	186,923	203,875	390,798	2.76%	390,798	2.04%
Todd Creech ⁽⁷⁾	—	—	—	—	—	—
Henrik Rasmussen ⁽⁸⁾	—	161,670	161,670	1.15%	161,670	*
D. Jeffrey Keyser ⁽⁹⁾	216,169	191,161	407,330	2.88%	407,330	2.13%
Guy Nohra ⁽¹⁰⁾	3,030,090	—	3,030,090	21.73%	3,030,090	15.99%
Marc Ostro ⁽¹¹⁾	2,426,471	—	2,426,471	17.40%	2,426,471	12.81%
All directors and executive officers as a group (8 persons) ⁽¹²⁾	5,859,653	756,356	6,616,009	45.00%	6,616,009	33.58%

* Indicates beneficial ownership of less than 1% of the total outstanding common stock.

- (1) Consists of (a) 2,849,703 shares of Series C preferred stock and (b) 180,387 shares of Series D preferred stock. Guy Nohra has served as a member of our board since June 2013, and is a managing director of Alta Partners Management VIII, LLC (which is the general partner of Alta Partners VIII, L.P.). The two other managing directors of Alta Partners Management VIII, LLC are Daniel Janney and Farah Champsi. Such individuals share voting and investment power over the shares held by the fund and disclaim beneficial ownership over such shares except to the extent of their pecuniary interest therein. The address of Alta Partners VIII, L.P. is One Embarcadero Center, Suite 3700, San Francisco, CA 94111.
- (2) Consists of (a) 284,580 shares of common stock, (b) 1,138,320 shares of Series B preferred stock, (c) 824,913 shares of Series C preferred stock, and (d) 168,910 shares of Series D preferred stock, held by Devon Park Bioventures, L.P., and (e) 9,748 shares of common stock, held by Devon Park Associates, L.P. Marc Ostro has served as a member of our board since November 2011, and is a general partner of Devon Park Associates, L.P., the general partner of Devon Park Bioventures, L.P. The two other general partners of Devon Park Associates, L.P. are Christopher Moller and Devang Kantesaria. Such individuals share voting and investment power over the shares held by the fund, and disclaim beneficial ownership over such shares except to the extent of their pecuniary interest therein. The address of Devon Park Bioventures, L.P. and Devon Park Associates, L.P. is 1400 Liberty Ridge Drive, Suite 103, Wayne, PA 19087.
- (3) Consists of (a) 1,687,324 shares of Series C preferred stock and (b) 172,097 shares of Series D preferred stock, held by 3x5 Special Opportunity Fund, L.P. Also includes (c) 235,895 shares of Series C preferred stock and (d) 24,060 shares of Series D preferred stock, held by RiverVest Venture Fund II, L.P. Also includes (e) 64,073 shares of Series C preferred stock and (f) 6,534 shares of Series D preferred stock, held by RiverVest Venture Fund II (Ohio), L.P. John P. McKearn, Ph.D., one of our former directors, is an Authorized Person of RiverVest 3x5 Special Opportunity Managers, LLC, a member of 3x5 Special Opportunity Partners, LLC. 3x5 Special Opportunity Partners, LLC is the general partner of 3x5 Special Opportunity Fund, L.P. Dr. McKearn is also an Authorized Person of RiverVest Venture Partners II, LLC, the general partner of RiverVest Partners II, L.P. RiverVest Partners II, L.P. is the sole member of RiverVest Venture Partners II (Ohio), LLC, the general partner of RiverVest Venture Fund II (Ohio), L.P.

RiverVest Partners II, L.P. is also the general partner of RiverVest Venture Fund II, L.P. As an Authorized Person of RiverVest Venture Partners II, LLC and RiverVest 3x5 Special Opportunity Managers, LLC, Dr. McKearn may be deemed to share dispositive voting and investment power with respect to the shares held by such entities. Dr. McKearn disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. The address of 3x5 Special Opportunity Fund, L.P. is 7733 Forsyth Blvd., Suite 1650, St. Louis, MO 63105. Dr. McKearn resigned as a member of our board on May 8, 2014.

- (4) Consists of (a) 264,333 shares of common stock and (b) 7,204 shares of Series B preferred stock, held by The Dyett Family Trust. John Dyett is the Trustee of The Dyett Family Trust. Also includes (c) 1,237,370 shares of Series C preferred stock and (d) 123,651 shares of Series D preferred stock, held by Salem ZS Investors, LLC. Mr. Dyett is the sole manager of Salem ZS Investors, LLC. Salem ZS Investors, LLC is a limited liability company consisting of 65 members, as of May 31, 2014. Mr. Dyett, acting as manager for Salem ZS Investors, LLC, has sole voting power over the shares held by Salem ZS Investors, LLC, but shares dispositive power over such shares, which powers may be exercised by members holding more than 50% of the outstanding interests in Salem ZS Investors, LLC, with each of the other members. Mr. Dyett disclaims beneficial ownership over the shares held by Salem ZS Investors, LLC, except to the extent of his pecuniary interest therein. The address of Salem ZS Investors, LLC is 11111 Santa Monica Blvd., Suite 2250, Los Angeles, CA 90025.
- (5) Consists of 149,484 shares of common stock issuable upon the exercise of stock options within 60 days of May 31, 2014. Dr. Alexander was granted options to purchase 448,453 shares of our common stock pursuant to his Employment Agreement in March 2013, which vests in accordance with the default vesting schedule detailed in "Management — Outstanding Equity Awards at 2013 Fiscal Year-End." He was granted options to purchase an additional 189,848 shares of our common stock in January 2014, none of which will have vested within 60 days of May 31, 2014.
- (6) Consists of (a) 167,533 shares of common stock, (b) 12,186 shares of Series A preferred stock, and (c) 7,204 shares of Series B preferred stock, and (d) 203,875 shares of common stock issuable upon the exercise of stock options within 60 days of May 31, 2014. Dr. Guillem was granted options to purchase an additional 81,470 shares of our common stock in April 2014, none of which will have vested within 60 days of May 31, 2014.
- (7) Mr. Creech was granted 280,771 options pursuant to his Employment Agreement, which vest in accordance with the default vesting schedule detailed in "Management — Outstanding Equity Awards at 2013 Fiscal Year-End." He was granted options to purchase an additional 53,326 shares of our common stock in April 2014. No options will have vested within 60 days of May 31, 2014.
- (8) Consists of 161,670 shares of common stock issuable upon the exercise of stock options within 60 days of May 31, 2014. Dr. Rasmussen was granted options to purchase an additional 55,548 shares of our common stock in April 2014, none of which will have vested within 60 days of May 31, 2014.
- (9) Consists of (a) 148,035 shares of common stock, (b) 12,186 shares of Series A preferred stock, (c) 7,204 shares of Series B preferred stock, and (d) 191,161 shares of common stock issuable upon the exercise of stock options within 60 days of May 31, 2014. Also consists of 48,744 shares of Series A preferred stock held by Private Trust Company FBO Donald Jeffrey Keyser IRA. Dr. Keyser was granted options to purchase an additional 75,545 shares of our common stock in April 2014, none of which will have vested within 60 days of May 31, 2014.
- (10) Consists of (a) 2,849,703 shares of Series C preferred stock and (b) 180,387 shares of Series D preferred stock, held by Alta Partners VIII, L.P., as referenced in footnote 1 above. Guy Nohra has served as a member of our board since June 2013, and is a Managing Director of Alta Partners Management VIII, LLC (which is the general partner of Alta Partners VIII, L.P.). The two other Managing Directors of Alta Partners Management VIII, LLC are Daniel Janney and Farah Champsi. Such individuals share voting and investment power over the shares held by the fund and disclaim beneficial ownership over such shares except to the extent of their pecuniary interest therein.

- (11) Consists of (a) 284,580 shares of common stock, (b) 1,138,320 shares of Series B preferred stock, (c) 824,913 shares of Series C preferred stock, and (d) 168,910 shares of Series D preferred stock, held by Devon Park Bioventures, L.P., and (e) 9,748 shares of common stock, held by Devon Park Associates, L.P., as referenced in footnote 2 above. Mr. Ostro has served as a member of our board since November 2011, and is a General Partner of Devon Park Associates, L.P., the general partner of Devon Park Bioventures, L.P. The two other General Partners of Devon Park Associates, L.P. are Christopher Moller and Devang Kantesaria. Such individuals share voting and investment power over the shares held by the fund, and disclaim beneficial ownership over such shares except to the extent of their pecuniary interest therein.
- (12) Consists of (a) 609,897 shares of common stock, (b) 73,117 shares of Series A preferred stock, (c) 1,152,728 shares of Series B preferred stock, (d) 3,674,616 shares of Series C preferred stock, (e) 349,297 shares of Series D preferred stock, and (f) 756,356 shares of common stock issuable upon the exercise of stock options within 60 days of May 31, 2014, which are held prior to this offering by our directors, executive officers, and entities affiliated with certain of our directors, which beneficial ownership may be disclaimed in the footnotes above.